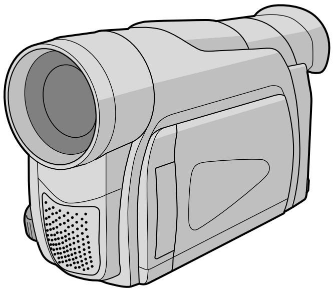
JVC

SERVICE MANUAL

DIGITAL VIDEO CAMERA

GR-D50AA,GR-D50AG,GR-D50AS,GR-D51AG



Mini DV PAL

For disassembling and assembling of MECHANISM ASSEMBLY, refer to the SERVICE MANUAL No.86700 (MECHANISM ASSEMBLY).

Regarding service information other than these sections, refer to the service manual No. 86730 (GR-D20EK).
Also, be sure to note important safety precautions provided in the service manual.

SPECIFICATION *(The specifications shown pertain specifically to the model GR-D50, D30)*

Camcorder

General

Power supply	: DC 11.0 V ⎓ (Using AC Adapter) DC 7.2 V ⎓ (Using battery pack)
Power consumption	
LCD monitor off, viewfinder on	: Approx. 3.4 W
LCD monitor on, viewfinder off	: Approx. 4.7 W
Dimensions (W x H x D)	: 69 mm x 94 mm x 143 mm (with the LCD monitor closed and the viewfinder pushed back in)
Weight	: Approx. 525 g
Operating temperature	: 0°C to 40°C
Operating humidity	: 35% to 80%
Storage temperature	: –20°C to 50°C
Pickup	: 1/6” CCD
Lens	: F 1.6 – 2.4, f = 2.7 mm to 43.2 mm, 16:1 power zoom lens
Filter diameter	: ø37 mm
LCD monitor	: 2.5” diagonally measured, LCD panel/TFT active matrix system
Viewfinder	: Electronic viewfinder with 0.24” black/white LCD
Speaker	: Monaural

Digital Video Camera

Format	: DV format (SD mode)
Signal format	: PAL standard
Recording/Playback format	: Video: Digital component recording : Audio: PCM digital recording, 32 kHz 4-channel (12-bit), 48 kHz 2-channel (16-bit)
Cassette	: Mini DV cassette
Tape speed	: SP : 18.8 mm/s LP : 12.5 mm/s
Maximum recording time (using 80 min. cassette)	: SP : 80 min. LP : 120 min.

Connectors

S-Video	
Output	: Y : 1 V (p-p), 75 Ω, analogue C : 0.29 V (p-p), 75 Ω, analogue
Input*	: Y : 0.8 V (p-p) – 1.2 V (p-p), 75 Ω, analogue C : 0.2 V (p-p) – 0.4 V (p-p), 75 Ω, analogue
AV	
Video output	: 1 V (p-p), 75 Ω, analogue
Video input*	: 0.8 V (p-p) – 1.2 V (p-p), 75 Ω, analogue
Audio output	: 300 mV (rms), 1 kΩ, analogue, stereo
Audio input*	: 300 mV (rms), 50 kΩ, analogue, stereo
DV	
Output	: 4-pin, IEEE 1394 compliant
Input	: 4-pin, IEEE 1394 compliant
USB*	: 5-pin
EDIT	: ø3.5 mm, 2-pole

* GR-D50 only

AC Adapter

Power requirement	: AC 110 V — 240 V ∿, 50 Hz/60 Hz
Output	: DC 11 V ⎓ , 1 A

Optional Accessories

- **Battery Packs BN-V416U, BN-V428U**

Specifications shown are for SP mode unless otherwise indicated. E & O.E.
Design and specifications subject to change without notice.

GR-D50AA,GR-D50AG,GR-D50AS,GR-D51AG M3D125

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No. 86742
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DIFFERENT LIST

DIFFERENT TABLE OF FEATURE

The following table indicate main different points between models GR-D40EX, GR-D50AA, GR-D50AG, GR-D50AS and GR-D51AG.

ITEM \ MODEL	GR-D40EX	GR-D50AA	GR-D50AG	GR-D50AS	GR-D51AG
DV TERMINAL	OUT ONLY	IN/OUT	←	←	←
TOTAL ZOOM RATIO	700X	←	←	←	800X
BODY COLOR	SILVER	←	←	←	METALLIC BLUE
AC ADAPTER	AP-V11E or AP-V13E	←	AP-V13A or AP-V11E or AP-V13E	AP-V13A	AP-V13A or AP-V11E or AP-V13E
AC CORD	CEE PLUG	AS/NZS PLUG	CEE PLUG	SASO PLUG	CEE PLUG
PERI-RCA ADAPTER	YES	NO	←	←	←

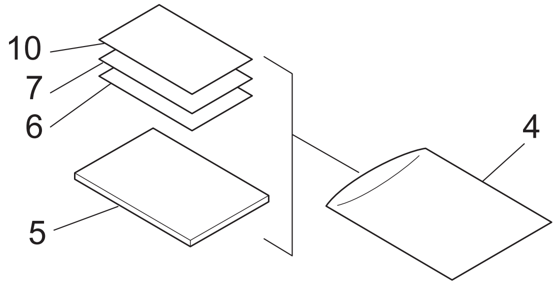
DIFFERENT TABLE OF PARTS LIST

The following table indicate different parts number between models GR-D40EX, GR-D50AA, GR-D50AG, GR-D50AS and GR-D51AG.

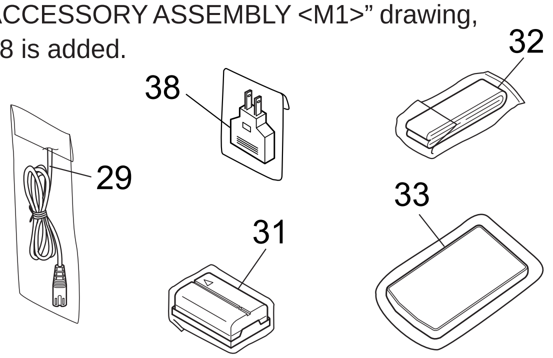
PACKING AND ACCESSORY ASSEMBLY <M1>

⚠	REF. NO.	ITEM \ MODEL	GR-D40EX	GR-D50AA	GR-D50AG	GR-D50AS	GR-D51AG
	1	PACKING CASE	LY33063-003A	←	←	←	LY33063-017B
	2	CUSHION	LY33065-001B	LY33065-001C	←	←	←
⚠	5	INST BOOK(ENGLISH)	—	LYT1121-001A	←	←	LYT1156-001A
⚠	5	INST BOOK(GERMAN)	LYT1098-002A	—	LYT1121-005A	←	—
⚠	5	INST BOOK(FRENCH)	LYT1098-003A	—	LYT1121-006A	←	—
⚠	5	INST BOOK(DUTCH)	LYT1098-004A	—	—	—	—
⚠	5	INST BOOK(SPANISH)	LYT1098-005A	—	—	—	—
⚠	5	INST BOOK(ITALIAN)	LYT1098-006A	—	—	—	—
⚠	5	INST BOOK(CHINESE)	—	—	LYT1121-002A	←	—
⚠	5	INST BOOK(RUSSIAN)	—	—	LYT1121-003A	←	—
⚠	5	INST BOOK(ARABIC)	—	—	LYT1121-004A	←	—
	6	INST BOOK(SOFT.ENGLISH)	—	LYT1086-001A	←	←	←
	6	INST BOOK(SOFT.GERMAN)	LYT1086-002A	—	LYT1086-002A	←	—
	6	INST BOOK(SOFT.FRENCH)	LYT1086-003A	—	LYT1086-003A	←	—
	6	INST BOOK(SOFT.DUTCH)	LYT1086-004A	—	—	—	—
	6	INST BOOK(SOFT.SPANISH)	LYT1086-005A	—	—	—	—
	6	INST BOOK(SOFT.ITALIAN)	LYT1086-006A	—	—	—	—
	6	INST BOOK(SOFT.CHINESE)	—	—	LYT1086-015A	←	—
	6	INST BOOK(SOFT.RUSSIAN)	—	—	LYT1086-011A	←	—
	7	WARRANTY CARD	BT-54013-5	BT-56012-1	—	—	BT-20128N
	10	SHEET(CON.PLUG)	—	—	LYT0609-001A	←	←
⚠	27	AC ADAPTER	LY20955-001C	←	←	—	LY20955-001C
⚠	27	AC ADAPTER	LY20956-001B	←	←	—	LY20955-001B
⚠	27	AC ADAPTER	—	—	LY20955-002B	←	←
⚠	29	POWER CORD	QMPL120-190-JR	QMPH020-190-JR	QMPL120-190-JR	QMPS110-190-JR	QMPL120-190-JR
⚠	38	CONVERSION PLUG	—	—	PEMC1012-02	PEMC1012	PEMC1012-02
	41	ADAPTOR PLUG	QAM0302-001	—	—	—	—

As for the difference in a “PACKING AND ACCESSORY ASSEMBLY <M1>” drawing, 10 is added.



As for the difference in a “PACKING AND ACCESSORY ASSEMBLY <M1>” drawing, 38 is added.



Notes : Mark — is not used.
Mark ← is same as left.

FINAL ASSEMBLY <M2>

⚠ REF. NO.	MODEL ITEM	GR-D40EX	GR-D50AA	GR-D50AG	GR-D50AS	GR-D51AG
101	U.CASE(2.5)ASSY	LY20941-003J	←	LY20941-003E	←	LY20941-008C
101F	SPACER(A)	LY30030-0F2A	←	←	←	—
109	COVER(UPPER2.5)	LY33049-002A	←	←	←	LY33049-001A
112	COVER(JIG)	LY33050-002C	←	←	←	LY33050-001C
115	ORNAMENT(2.5)	LY33009-001A	←	←	←	LY33360-001B
123	STICKER(2)	LY44187-004A	LY44187-003A	←	←	←
135	F.COVER ASSY	LY20943-002E	←	LY20943-002D	LY20943-002E	LY20943-004B
162	SPECIAL SCREW	LY30018-0E6A	*LY30018-059A	*←	*←	*←
165	C.COVER ASSY	LY20937-003B	←	←	←	LY20937-001E
165E	GRIP BELT	LY20945-003A	←	←	←	LY20945-001A
259	SPACER(A)	LY30029-0Q7A	←	—	LY30029-0Q7A	←

MONITOR ASSEMBLY <M5>

⚠ REF. NO.	MODEL ITEM	GR-D40EX	GR-D50AA	GR-D50AG	GR-D50AS	GR-D51AG
500	MONITOR ASSY	LY21042-004B	←	←	←	LY21042-001B
501	M.COVER(2.5)ASSY	LY20932-003E	←	←	←	LY20932-001E
515	MONI.HINGE ASSY	LY33013-003B	←	←	←	LY33013-001B
515A	HINGE COVER(U)	LY33015-002A	←	←	←	LY33015-001A

ELECTRONIC VIEWFINDER ASSEMBLY <M4>

⚠ REF. NO.	MODEL ITEM	GR-D40EX	GR-D50AA	GR-D50AG	GR-D50AS	GR-D51AG
318A	TOR.SPRING	LY43962-001C	*LY43962-001E	*←	*←	*←

MAIN BOARD ASSEMBLY <01>

⚠ REF. NO.	MODEL ITEM	GR-D40EX	GR-D50AA	GR-D50AG	GR-D50AS	GR-D51AG
PW1	MAIN BOARD ASSY	YB10404K-02	YB10404H-02	←	←	←

Notes : Mark — is not used.
Mark ← is same as left.
Mark * reference model was also changed.

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Printed in Japan
200305VP

PARTS LIST

MODEL	MARK	MODEL	MARK
GR-D50AA	A	GR-D50AS	C
GR-D50AG	B	GR-D51AG	D

SAFETY PRECAUTION

Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.

BEWARE OF BOGUS PARTS

Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.

1. PARTS LIST

MAIN BOARD ASSEMBLY <01>

⚠	Symbol No.	Part No.	Part Name	Description	Local
	PW1	YB10404H-02	MAIN BOARD ASSY		
	IC1001	MN103S33NJC	IC(MICRO C ROM)		
	IC1001	or MN103SF33NY4JC	IC(MICRO C ROM)		
	IC1002	MB90097PFV149-X	IC(MICRO C ROM)		
	IC1003	SN74AHC1G00K-X	IC		
	IC1003	or SN74AHC1G00DC-X	IC		
	IC1004	S-89220ACNC-W	IC		
	IC1005	X25330S8I-2.5-X	IC		
	IC1005	or AT25320N-10SI-X	IC		
	IC1005	or M95320-WMN6-X	IC		
	IC1005	or 25LC320-I/SN-X	IC		
	IC1005	or CAT25C32SI-X	IC		
	IC1006	RS5C314-X	IC		
	IC1007	IC-PST3423U-X	IC		
	IC1007	or S-80823CNNB-X	IC		
	IC2101	AK5355VT-X	IC		
	IC2201	AK4564VQ	IC		
	IC3001	JCY0152	IC		
	IC3002	BU2501FV-X	IC		
	IC3005	JCY0136-X	IC		
	IC3701	BA7665FS-X	IC		
	IC3701	or BA7665AFS-X	IC		
	IC3731	MM1504XN-X	IC		
	IC3801	JCP8045	IC(DIGITAL)		
	IC4201	HD49340NP-X	IC		
	IC4202	MM1613AN-X	IC		
	IC4301	JCY0200	IC		
	IC4302	R1160N151B-X	IC		
	IC4802	BA10358FVM-W	IC		
	IC4803	BA10358FVM-W	IC		
	IC4804	UPC358G2/5/-W	IC		
	IC4851	UPD16879GS-X	IC		
	IC5501	JCY0185	IC		
	IC6001	FA3698F	IC		
	IC6801	R1224N102G-X	IC		
	IC8701	PIX-MC10	IC		
	IC8702	HY57V161610DTC7	IC		
	Q1001	DTA114EE-X	DIGI TRANSISTOR		
	Q1001	or PDTA114EE-X	DIGI TRANSISTOR		
	Q1001	or RN2102-X	DIGI TRANSISTOR		
	Q1001	or BCR183T-X	DIGI TRANSISTOR		
	Q1002	UMC3N-W	DIGI TRANSISTOR		
	Q1003	UMC3N-W	DIGI TRANSISTOR		
	Q1004	UMC3N-W	DIGI TRANSISTOR		
	Q1005	DTC143XE-X	DIGI TRANSISTOR		
	Q1006	UMC3N-W	DIGI TRANSISTOR		
	Q1007	2SC4617/QR/-X	TRANSISTOR		
	Q1007	or BC847BT-X	TRANSISTOR		
	Q1008	DTC124EE-X	DIGI TRANSISTOR		
	Q1008	or PDTC124EE-X	DIGI TRANSISTOR		
	Q1008	or BCR141T-X	DIGI TRANSISTOR		
	Q1009	2SJ347-X	MOS FET		
	Q2001	UMX1N-W	PAIR TRANSISTOR		
	Q2001	or BC847S-X	PAIR TRANSISTOR		
	Q2002	UMX1N-W	PAIR TRANSISTOR		
	Q2002	or BC847S-X	PAIR TRANSISTOR		
	Q2003	UMX1N-W	PAIR TRANSISTOR		
	Q2003	or BC847S-X	PAIR TRANSISTOR		
	Q2004	UMX1N-W	PAIR TRANSISTOR		
	Q2004	or BC847S-X	PAIR TRANSISTOR		
	Q2005	UMX1N-W	PAIR TRANSISTOR		
	Q2005	or BC847S-X	PAIR TRANSISTOR		
	Q2006	UMX1N-W	PAIR TRANSISTOR		
	Q2006	or BC847S-X	PAIR TRANSISTOR		
	Q2202	UMX1N-W	PAIR TRANSISTOR		
	Q2202	or BC847S-X	PAIR TRANSISTOR		
	Q2401	2SC4617/QR/-X	TRANSISTOR		
	Q2401	or BC847BT-X	TRANSISTOR		
	Q2403	2SC4617/QR/-X	TRANSISTOR		
	Q2403	or BC847BT-X	TRANSISTOR		
	Q3001	2SC4617/RS/-X	TRANSISTOR		
	Q3001	or BC847BT-X	TRANSISTOR		
	Q3002	2SC4617/RS/-X	TRANSISTOR		
	Q3002	or BC847BT-X	TRANSISTOR		
	Q3701	UMT1N-W	PAIR TRANSISTOR		
	Q3701	or XP4401-W	PAIR TRANSISTOR		
	Q3701	or BC856S-X	PAIR TRANSISTOR		
	Q3702	UMZ1N-W	PAIR TRANSISTOR		
	Q3702	or XP4601-W	PAIR TRANSISTOR		
	Q3704	2SA1774/RS/-X	TRANSISTOR		
	Q3704	or BC857BT-X	TRANSISTOR		
	Q3705	UMT1N-W	PAIR TRANSISTOR		
	Q3705	or XP4401-W	PAIR TRANSISTOR		
	Q3705	or BC856S-X	PAIR TRANSISTOR		
	Q3731	2SC4617/RS/-X	TRANSISTOR		
	Q3731	or 2SD2216J/RS/-X	TRANSISTOR		
	Q3731	or BC847BT-X	TRANSISTOR		
	Q3732	DTC144EE-X	DIGI TRANSISTOR		
	Q3732	or UN9213J-X	DIGI TRANSISTOR		
	Q3732	or BCR148T-X	DIGI TRANSISTOR		
	Q3733	UMZ1N-W	PAIR TRANSISTOR		
	Q3733	or XP4601-W	PAIR TRANSISTOR		
	Q3734	2SC4617/RS/-X	TRANSISTOR		
	Q3734	or 2SD2216J/RS/-X	TRANSISTOR		
	Q3734	or BC847BT-X	TRANSISTOR		
	Q3735	UMZ1N-W	PAIR TRANSISTOR		
	Q3735	or XP4601-W	PAIR TRANSISTOR		
	Q4801	2SC4655/BC/-X	TRANSISTOR		
	Q4806	2SC4617/QR/-X	TRANSISTOR		
	Q4806	or BC847BT-X	TRANSISTOR		
	Q4851	2SC4617/RS/-X	TRANSISTOR		
	Q4851	or BC847BT-X	TRANSISTOR		
	Q6101	SSM5G01TU-X	MOS FET		
	Q6102	2SA1577/QR/-X	TRANSISTOR		
	Q6102	or BC807-25W-X	TRANSISTOR		
	Q6201	SSM5G01TU-X	MOS FET		
	Q6301	SSM5G01TU-X	MOS FET		
	Q6302	2SA1577/QR/-X	TRANSISTOR		
	Q6302	or BC807-25W-X	TRANSISTOR		
	Q6303	2SC4617/QR/-X	TRANSISTOR		
	Q6303	or BC847BT-X	TRANSISTOR		
	Q6401	SSM5G01TU-X	MOS FET		
	Q6501	SSM5G01TU-X	MOS FET		
	Q6601	CPH3314-X	MOS FET		
	Q6602	UMX1N-W	PAIR TRANSISTOR		
	Q6602	or HN1C01FU/G/-X	PAIR TRANSISTOR		
	Q6602	or BC847S-X	PAIR TRANSISTOR		
	Q6603	2SA1577/QR/-X	TRANSISTOR		
	Q6603	or BC807-25W-X	TRANSISTOR		
	Q6604	DTC144EE-X	DIGI TRANSISTOR		
	Q6604	or BCR148T-X	DIGI TRANSISTOR		

MODEL	MARK	MODEL	MARK
GR-D50AA	A	GR-D50AS	C
GR-D50AG	B	GR-D51AG	D

⚠	Symbol No.	Part No.	Part Name	Description	Local
	Q6605	UMT1N-W	PAIR TRANSISTOR		
	Q6605	or HN1A01FU/G/-X	PAIR TRANSISTOR		
	Q6605	or BC856S-X	PAIR TRANSISTOR		
	Q6606	2SC4617/QR/-X	TRANSISTOR		
	Q6606	or BC847BT-X	TRANSISTOR		
	Q6701	CPH3314-X	MOS FET		
	Q6801	FML9-W	TRANSISTOR		
	D1001	DA221-X	SI DIODE		
	D3001	EC2C01C-X	VARI CAP DIODE		
	D3002	EC2C01C-X	VARI CAP DIODE		
	D3003	EC2C01C-X	VARI CAP DIODE		
	D3004	MA2Z720-X	SB DIODE		
	D5501	1SS355-X	SI DIODE		
	D6601	RB481K-X	SB DIODE		
	D6602	RB480Y-W	SB DIODE		
	D6701	RB160M-30-X	SB DIODE		
	D6702	RB160M-30-X	SB DIODE		
⚠	D6801	RB715F-X	SB DIODE		
⚠	D6801	or BAS40-05W-X	SB DIODE		
	D8702	EMZ6.8N-X	Z DIODE		
	D8703	EMZ6.8N-X	Z DIODE		
	C1001	NDCA1HJ-8R0W	C CAPACITOR	8pF,50V J	
	C1002	NDCA1HJ-100W	C CAPACITOR	10pF,50V J	
	C1004	NCFA1AZ-104W	C CAPACITOR	0.1μF,10V Z	
	C1005	NCFA1AZ-104W	C CAPACITOR	0.1μF,10V Z	
	C1007	NCFA1AZ-104W	C CAPACITOR	0.1μF,10V Z	
	C1008	NCFA1AZ-104W	C CAPACITOR	0.1μF,10V Z	
	C1009	NCFA1AZ-104W	C CAPACITOR	0.1μF,10V Z	
	C1010	NCFA1AZ-104W	C CAPACITOR	0.1μF,10V Z	
	C1011	NCFA1AZ-104W	C CAPACITOR	0.1μF,10V Z	
	C1012	NCFA1AZ-104W	C CAPACITOR	0.1μF,10V Z	
	C1013	NCFA1AZ-104W	C CAPACITOR	0.1μF,10V Z	
	C1014	NCFA1AZ-104W	C CAPACITOR	0.1μF,10V Z	
	C1015	NCFA1AZ-104W	C CAPACITOR	0.1μF,10V Z	
	C1019	NCFA1HZ-103W	C CAPACITOR	0.01μF,50V Z	
	C1020	NCBA1EK-682W	C CAPACITOR	0.0068μF,25V K	
	C1021	NCBA1EK-682W	C CAPACITOR	0.0068μF,25V K	
	C1022	NCFA1HZ-103W	C CAPACITOR	0.01μF,50V Z	
	C1024	NCFA1HZ-103W	C CAPACITOR	0.01μF,50V Z	
	C1025	NCFA1HZ-103W	C CAPACITOR	0.01μF,50V Z	
	C1029	NCFA1HZ-103W	C CAPACITOR	0.01μF,50V Z	
	C1030	NBE20JM-106X	TA E CAPACITOR	10μF,6.3V M	
	C1032	NCFA1HZ-103W	C CAPACITOR	0.01μF,50V Z	
	C1035	NCFA1HZ-103W	C CAPACITOR	0.01μF,50V Z	
	C1036	NCFA1AZ-104W	C CAPACITOR	0.1μF,10V Z	
	C1037	NCFA1HZ-103W	C CAPACITOR	0.01μF,50V Z	
	C1038	NCFA1HZ-103W	C CAPACITOR	0.01μF,50V Z	
	C1039	NCFA1HZ-103W	C CAPACITOR	0.01μF,50V Z	
	C1040	NDCA1HJ-100W	C CAPACITOR	10pF,50V J	
	C1041	NCFA1AZ-104W	C CAPACITOR	0.1μF,10V Z	
	C1042	NCFA1AZ-104W	C CAPACITOR	0.1μF,10V Z	
	C1043	NCFA1AZ-104W	C CAPACITOR	0.1μF,10V Z	
	C1044	NDCA1HJ-470W	C CAPACITOR	47pF,50V J	
	C1045	NDCA1HJ-470W	C CAPACITOR	47pF,50V J	
	C1046	NCF31AZ-105X	C CAPACITOR	1μF,10V Z	
	C1047	NCFA1HZ-103W	C CAPACITOR	0.01μF,50V Z	
	C1048	NCFA1HZ-103W	C CAPACITOR	0.01μF,50V Z	
	C1049	NCFA1HZ-103W	C CAPACITOR	0.01μF,50V Z	
	C1050	NCFA1HZ-103W	C CAPACITOR	0.01μF,50V Z	
	C1051	NCB31CK-223X	C CAPACITOR	0.022μF,16V K	
	C1052	NCB31CK-223X	C CAPACITOR	0.022μF,16V K	
	C1053	NCB31CK-223X	C CAPACITOR	0.022μF,16V K	
	C1054	NCB31CK-223X	C CAPACITOR	0.022μF,16V K	
	C1055	NCFA1AZ-104W	C CAPACITOR	0.1μF,10V Z	
	C1064	NBE20JM-226X	TA E CAPACITOR	22μF,6.3V M	
	C2105	NCBA1HK-222W	C CAPACITOR	0.0022μF,50V K	
	C2106	NCBA1HK-222W	C CAPACITOR	0.0022μF,50V K	
	C2107	NBE20JM-106X	TA E CAPACITOR	10μF,6.3V M	
	C2108	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C2109	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	

⚠	Symbol No.	Part No.	Part Name	Description	Local
	C2110	NBE20JM-475X	TA E CAPACITOR	4.7μF,6.3V M	
	C2201	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C2202	NCB30JK-105X	C CAPACITOR	1μF,6.3V K	
	C2203	NCB30JK-105X	C CAPACITOR	1μF,6.3V K	
	C2204	NCB30JK-105X	C CAPACITOR	1μF,6.3V K	
	C2205	NCB30JK-105X	C CAPACITOR	1μF,6.3V K	
	C2209	NCB30JK-105X	C CAPACITOR	1μF,6.3V K	
	C2210	NCB30JK-105X	C CAPACITOR	1μF,6.3V K	
	C2211	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C2212	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C2213	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C2214	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C2215	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C2216	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C2217	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C2218	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C2223	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C2224	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C2401	NBE20JM-106X	TA E CAPACITOR	10μF,6.3V M	
	C2402	NBE20JM-106X	TA E CAPACITOR	10μF,6.3V M	
	C2403	NBE20JM-106X	TA E CAPACITOR	10μF,6.3V M	
	C2404	NBE20JM-106X	TA E CAPACITOR	10μF,6.3V M	
	C2405	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C2406	NBE20JM-106X	TA E CAPACITOR	10μF,6.3V M	
	C2603	NCBA1CK-153W	C CAPACITOR	0.015μF,16V K	
	C2604	NCBA1CK-153W	C CAPACITOR	0.015μF,16V K	
	C2605	NCBA1EK-472W	C CAPACITOR	0.0047μF,25V K	
	C2606	NCBA1EK-472W	C CAPACITOR	0.0047μF,25V K	
	C2607	NCBA1HK-102W	C CAPACITOR	0.001μF,50V K	
	C2608	NCBA1HK-102W	C CAPACITOR	0.001μF,50V K	
	C2611	NCB30JK-105X	C CAPACITOR	1μF,6.3V K	
	C2612	NCB30JK-105X	C CAPACITOR	1μF,6.3V K	
	C2613	NCB30JK-105X	C CAPACITOR	1μF,6.3V K	
	C2614	NDCA1HJ-101W	C CAPACITOR	100pF,50V J	
	C2615	NDCA1HJ-101W	C CAPACITOR	100pF,50V J	
	C3001	NBE20JM-106X	TA E CAPACITOR	10μF,6.3V M	
	C3003	NCB30JK-105X	C CAPACITOR	1μF,6.3V K	
	C3005	NBE20JM-106X	TA E CAPACITOR	10μF,6.3V M	
	C3006	NCB30JK-105X	C CAPACITOR	1μF,6.3V K	
	C3007	NCB10JK-106X	C CAPACITOR	10μF,6.3V K	
	C3008	NBE20JM-106X	TA E CAPACITOR	10μF,6.3V M	
	C3009	NCB30JK-105X	C CAPACITOR	1μF,6.3V K	
	C3011	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C3012	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C3013	NCBA1CK-103W	C CAPACITOR	0.01μF,16V K	
	C3015	NCBA1CK-103W	C CAPACITOR	0.01μF,16V K	
	C3016	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C3017	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C3020	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C3021	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C3022	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C3023	NDCA1HJ-330W	C CAPACITOR	33pF,50V J	
	C3024	NCBA1HK-102W	C CAPACITOR	0.001μF,50V K	
	C3025	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C3026	NCB30JK-105X	C CAPACITOR	1μF,6.3V K	
	C3027	NCBA1EK-472W	C CAPACITOR	0.0047μF,25V K	
	C3028	NDCA1EJ-271W	C CAPACITOR	270pF,25V J	
	C3029	NCBA1CK-103W	C CAPACITOR	0.01μF,16V K	
	C3030	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C3031	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C3032	NCBA1HK-102W	C CAPACITOR	0.001μF,50V K	
	C3033	NDCA1HJ-220W	C CAPACITOR	22pF,50V J	
	C3036	NDCA1HJ-8R0W	C CAPACITOR	8pF,50V J	
	C3037	NDCA1HJ-8R0W	C CAPACITOR	8pF,50V J	
	C3038	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C3039	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C3042	NCBA1CK-103W	C CAPACITOR	0.01μF,16V K	
	C3043	NCBA1CK-103W	C CAPACITOR	0.01μF,16V K	
	C3044	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C3045	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	

MODEL	MARK	MODEL	MARK
GR-D50AA	A	GR-D50AS	C
GR-D50AG	B	GR-D51AG	D

⚠ Symbol No.	Part No.	Part Name	Description	Local
C3046	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C3047	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C3048	NCB31CK-473X	C CAPACITOR	0.047µF,16V K	
C3049	NCBA1HK-222W	C CAPACITOR	0.0022µF,50V K	
C3050	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C3055	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C3059	NBE20GM-226X	TA E CAPACITOR	22µF,4.0V M	
C3060	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C3064	NCBA1HK-102W	C CAPACITOR	0.001µF,50V K	
C3066	NCB30JK-105X	C CAPACITOR	1µF,6.3V K	
C3067	NCBA1HK-102W	C CAPACITOR	0.001µF,50V K	
C3069	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C3701	NBE20JM-106X	TA E CAPACITOR	10µF,6.3V M	
C3702	NDCA1HJ-560W	C CAPACITOR	56pF,50V J	
C3703	NDCA1HJ-270W	C CAPACITOR	27pF,50V J	
C3704	NDCA1HJ-680W	C CAPACITOR	68pF,50V J	
C3705	NDCA1HJ-270W	C CAPACITOR	27pF,50V J	
C3706	NCB30JK-105X	C CAPACITOR	1µF,6.3V K	
C3707	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C3708	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C3709	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C3712	NEA70GM-337X	E CAPACITOR	330µF,4.0V M	
C3713	NEA70GM-337X	E CAPACITOR	330µF,4.0V M	
C3715	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C3731	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C3732	NCBA1HK-102W	C CAPACITOR	0.001µF,50V K	
C3733	NDCA1HJ-3R0W	C CAPACITOR	3pF,50V J	
C3734	NDCA1HJ-5R0W	C CAPACITOR	5pF,50V J	
C3735	NDCA1HJ-330W	C CAPACITOR	33pF,50V J	
C3736	NCBA1HK-102W	C CAPACITOR	0.001µF,50V K	
C3738	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C3739	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C3740	NCB30JK-105X	C CAPACITOR	1µF,6.3V K	
C3741	NCB30JK-105X	C CAPACITOR	1µF,6.3V K	
C3742	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C3743	NDCA1HJ-3R0W	C CAPACITOR	3pF,50V J	
C3744	NDCA1HJ-5R0W	C CAPACITOR	5pF,50V J	
C3745	NDCA1HJ-330W	C CAPACITOR	33pF,50V J	
C3746	NCB20JM-475X	C CAPACITOR	4.7µF,6.3V M	
C3747	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C3805	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C3806	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C3807	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C3808	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C3809	NCB31CK-104X	C CAPACITOR	0.1µF,16V K	
C3810	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C3811	NCB31CK-104X	C CAPACITOR	0.1µF,16V K	
C3812	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C3813	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C3814	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C3815	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C3816	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C3817	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C3818	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C3819	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C3801	NCB21AK-105X	C CAPACITOR	1µF,10V K	
C3802	NCB21AK-105X	C CAPACITOR	1µF,10V K	
C3803	NBE20GM-476X	TA E CAPACITOR	47µF,4.0V M	
C3804	NBE20GM-476X	TA E CAPACITOR	47µF,4.0V M	
C4201	NBE20JM-106X	TA E CAPACITOR	10µF,6.3V M	
C4202	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4203	NCB21AK-105X	C CAPACITOR	1µF,10V K	
C4204	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4205	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4206	NCB21CK-105X	C CAPACITOR	1µF,16V K	
C4207	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4208	NCB30JK-105X	C CAPACITOR	1µF,6.3V K	
C4209	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4210	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4211	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4212	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4213	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4214	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4216	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4301	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4302	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4303	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4304	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4305	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4306	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4307	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4308	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4309	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4310	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4311	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4312	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4313	NBE20JM-106X	TA E CAPACITOR	10µF,6.3V M	
C4314	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4315	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4316	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C4317	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C4803	NBE20JM-106X	TA E CAPACITOR	10µF,6.3V M	
C4804	NCFA1AZ-104W	C CAPACITOR	0.1µF,10V Z	
C4806	NCFA1AZ-104W	C CAPACITOR	0.1µF,10V Z	
C4808	NCB30JK-105X	C CAPACITOR	1µF,6.3V K	
C4809	NCFA1AZ-104W	C CAPACITOR	0.1µF,10V Z	
C4810	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C4811	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C4812	NCFA1AZ-104W	C CAPACITOR	0.1µF,10V Z	
C4813	NCFA1AZ-104W	C CAPACITOR	0.1µF,10V Z	
C4814	NCFA1AZ-104W	C CAPACITOR	0.1µF,10V Z	
C4815	NCB31HK-152X	C CAPACITOR	0.0015µF,50V K	
C4819	NCB31CK-104X	C CAPACITOR	0.1µF,16V K	
C4851	NBE20JM-106X	TA E CAPACITOR	10µF,6.3V M	
C4852	NCFA1AZ-104W	C CAPACITOR	0.1µF,10V Z	
C4853	NBE21AM-335X	TA E CAPACITOR	3.3µF,10V M	
C4854	NBE21AM-106X	TA E CAPACITOR	10µF,10V M	
C4855	NCB31CK-104X	C CAPACITOR	0.1µF,16V K	
C4858	NDCA1HJ-330W	C CAPACITOR	33pF,50V J	
C4859	NCBA1CK-223W	C CAPACITOR	0.022µF,16V K	
C4860	NCBA1CK-223W	C CAPACITOR	0.022µF,16V K	
C4861	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C4862	NCBA1CK-103W	C CAPACITOR	0.01µF,16V K	
C4864	NBE20JM-106X	TA E CAPACITOR	10µF,6.3V M	
C4865	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C5501	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C5503	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C5504	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C5506	NBE40GM-476X	TA E CAPACITOR	47µF,4.0V M	
C5507	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C5508	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C5509	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C5510	NBP21VM-105X	TA E CAPACITOR	1µF,35V M	
C5511	NBZ0003-475X	TA E CAPACITOR	4.7µF,20V	
C5512	NBE21AM-106X	TA E CAPACITOR	10µF,10V M	
C5513	NCB31CK-104X	C CAPACITOR	0.1µF,16V K	
C5514	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C5515	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C5516	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C5517	NCB31CK-104X	C CAPACITOR	0.1µF,16V K	
C5518	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C5519	NCBA1AK-104W	C CAPACITOR	0.1µF,10V K	
C6002	NCB21CK-105X	C CAPACITOR	1µF,16V K	
C6003	NEA71CM-106X	E CAPACITOR	10µF,16V M	
C6004	NCB21CK-105X	C CAPACITOR	1µF,16V K	
C6021	NCB21CK-104X	C CAPACITOR	0.1µF,16V K	
C6022	NCB21CK-104X	C CAPACITOR	0.1µF,16V K	
C6023	NCB21CK-105X	C CAPACITOR	1µF,16V K	
C6024	NCB21CK-105X	C CAPACITOR	1µF,16V K	
C6025	NCB21CK-105X	C CAPACITOR	1µF,16V K	

MODEL	MARK	MODEL	MARK
GR-D50AA	A	GR-D50AS	C
GR-D50AG	B	GR-D51AG	D

⚠	Symbol No.	Part No.	Part Name	Description	Local
	C6026	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6027	NCBA1EK-472W	C CAPACITOR	0.0047μF,25V K	
	C6029	NCBA1HK-102W	C CAPACITOR	0.001μF,50V K	
	C6030	NCBA1HK-102W	C CAPACITOR	0.001μF,50V K	
	C6031	NCBA1HK-102W	C CAPACITOR	0.001μF,50V K	
	C6032	NCBA1HK-102W	C CAPACITOR	0.001μF,50V K	
	C6033	NCBA1CK-103W	C CAPACITOR	0.01μF,16V K	
	C6034	NCB31CK-104X	C CAPACITOR	0.1μF,16V K	
	C6035	NCB31CK-104X	C CAPACITOR	0.1μF,16V K	
	C6036	NDCA1HJ-101W	C CAPACITOR	100pF,50V J	
	C6037	NCB21CK-473X	C CAPACITOR	0.047μF,16V K	
	C6038	NCBA1CK-103W	C CAPACITOR	0.01μF,16V K	
	C6039	NCB31CK-104X	C CAPACITOR	0.1μF,16V K	
	C6040	NCB31CK-473X	C CAPACITOR	0.047μF,16V K	
	C6041	NCB31EK-103X	C CAPACITOR	0.01μF,25V K	
	C6042	NCB31EK-103X	C CAPACITOR	0.01μF,25V K	
	C6043	NCB31CK-223X	C CAPACITOR	0.022μF,16V K	
	C6044	NCBA1CK-103W	C CAPACITOR	0.01μF,16V K	
	C6045	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6101	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6103	NCB10JK-106X	C CAPACITOR	10μF,6.3V K	
	C6104	NCBA1HK-102W	C CAPACITOR	0.001μF,50V K	
	C6105	NCBA1HK-561W	C CAPACITOR	560pF,50V K	
	C6106	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6201	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6203	NCB10JK-106X	C CAPACITOR	10μF,6.3V K	
	C6204	NCBA1EK-472W	C CAPACITOR	0.0047μF,25V K	
	C6301	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6303	NCB10JK-106X	C CAPACITOR	10μF,6.3V K	
	C6304	NCBA1HK-102W	C CAPACITOR	0.001μF,50V K	
	C6401	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6403	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6405	NCB31CK-683X	C CAPACITOR	0.068μF,16V K	
	C6501	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6503	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6505	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6601	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6602	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6603	NCB11EK-105X	C CAPACITOR	1μF,25V K	
	C6605	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6606	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6607	NCB11EK-105X	C CAPACITOR	1μF,25V K	
	C6608	NCB31CK-104X	C CAPACITOR	0.1μF,16V K	
	C6609	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6701	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6703	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6801	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6802	NBE40JM-476X	TA E CAPACITOR	47μF,6.3V M	
	C6804	NCB21CK-105X	C CAPACITOR	1μF,16V K	
	C6807	NCB10JK-106X	C CAPACITOR	10μF,6.3V K	
	C6809	NDCA1HJ-151W	C CAPACITOR	150pF,50V J	
	C8701	NBE20JM-106X	TA E CAPACITOR	10μF,6.3V M	
	C8702	NBE20JM-106X	TA E CAPACITOR	10μF,6.3V M	
	C8703	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C8704	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C8705	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C8706	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C8707	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C8708	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C8709	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C8710	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C8711	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C8712	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	C8719	NCBA1AK-104W	C CAPACITOR	0.1μF,10V K	
	R1001	NRSA6AJ-105W	MG RESISTOR	1MΩ,1/16W J	
	R1002	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R1003	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R1006	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
	R1007	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R1008	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
	R1009	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
	R1010	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R1011	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R1012	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
	R1013	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
	R1014	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
	R1015	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
	R1016	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
	R1017	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W J	
	R1018	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W J	
	R1019	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
	R1020	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R1021	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R1022	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
	R1023	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
	R1024	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R1025	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R1027	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R1030	NRSA6AJ-753W	MG RESISTOR	75kΩ,1/16W J	
	R1031	NRSA6AJ-334W	MG RESISTOR	330kΩ,1/16W J	
	R1032	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W J	
	R1033	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W J	
	R1034	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W J	
	R1035	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
	R1037	NRSA6AJ-561W	MG RESISTOR	560Ω,1/16W J	
	R1038	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R1039	NRSA6AJ-152W	MG RESISTOR	1.5kΩ,1/16W J	
	R1040	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R1043	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
	R1044	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R1045	NRSA6AJ-105W	MG RESISTOR	1MΩ,1/16W J	
	R1046	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R1047	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R1048	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
	R1049	NRSA6AJ-623W	MG RESISTOR	62kΩ,1/16W J	
	R1050	NRSA6AJ-823W	MG RESISTOR	82kΩ,1/16W J	
	R1051	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W J	
	R1052	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R1053	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W J	
	R1054	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R1055	NRSA6AJ-334W	MG RESISTOR	330kΩ,1/16W J	
	R1056	NRSA6AJ-334W	MG RESISTOR	330kΩ,1/16W J	
	R1057	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
	R1058	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
	R1059	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
	R1060	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
	R1061	NRSA6AJ-561W	MG RESISTOR	560Ω,1/16W J	
	R1062	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W J	
	R1063	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W J	
	R1064	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
	R1065	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W J	
	R1066	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
	R1067	NRSA6AJ-334W	MG RESISTOR	330kΩ,1/16W J	
	R1068	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
	R1069	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R1070	NRSA6AJ-154W	MG RESISTOR	150kΩ,1/16W J	
	R1071	NRSA6AJ-272W	MG RESISTOR	2.7kΩ,1/16W J	
	R1072	NRSA6AJ-183W	MG RESISTOR	18kΩ,1/16W J	
	R1073	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
	R1074	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W J	
	R1075	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W J	
	R1076	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W J	
	R1077	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R1078	NRSA6AJ-393W	MG RESISTOR	39kΩ,1/16W J	
	R1079	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W J	
	R1080	NRSA6AJ-822W	MG RESISTOR	8.2kΩ,1/16W J	
	R1081	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
	R1082	NRSA6AJ-123W	MG RESISTOR	12kΩ,1/16W J	
	R1083	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
	R1084	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	

MODEL	MARK	MODEL	MARK
GR-D50AA	A	GR-D50AS	C
GR-D50AG	B	GR-D51AG	D

⚠ Symbol No.	Part No.	Part Name	Description	Local
R1085	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R1086	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W J	
R1087	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W J	
R1088	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W J	
R1089	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W J	
R1091	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
R1092	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
R1093	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
R1094	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
R1095	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R1096	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
R1097	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
R1099	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
R2001	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W J	
R2002	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W J	
R2003	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W J	
R2004	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W J	
R2005	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W J	
R2006	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W J	
R2007	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W J	
R2008	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W J	
R2009	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W J	
R2010	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W J	
R2011	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W J	
R2012	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W J	
R2101	NRSA6AJ-471W	MG RESISTOR	470Ω,1/16W J	
R2102	NRSA6AJ-471W	MG RESISTOR	470Ω,1/16W J	
R2105	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R2107	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R2108	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R2109	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R2110	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R2201	NRSA6AJ-684W	MG RESISTOR	680kΩ,1/16W J	
R2202	NRSA6AJ-564W	MG RESISTOR	560kΩ,1/16W J	
R2203	NRSA6AJ-393W	MG RESISTOR	39kΩ,1/16W J	
R2204	NRSA6AJ-154W	MG RESISTOR	150kΩ,1/16W J	
R2206	NRSA6AJ-333W	MG RESISTOR	33kΩ,1/16W J	
R2207	NRSA6AJ-333W	MG RESISTOR	33kΩ,1/16W J	
R2208	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W J	
R2209	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W J	
R2210	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R2211	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R2212	NRSA6AJ-2R7W	MG RESISTOR	2.7Ω,1/16W J	
R2213	NRSA6AJ-2R7W	MG RESISTOR	2.7Ω,1/16W J	
R2217	NRSA6AJ-100W	MG RESISTOR	10Ω,1/16W J	
R2218	NRSA6AJ-100W	MG RESISTOR	10Ω,1/16W J	
R2219	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R2220	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R2221	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R2222	NRSA6AJ-100W	MG RESISTOR	10Ω,1/16W J	
R2223	NRSA6AJ-100W	MG RESISTOR	10Ω,1/16W J	
R2224	NRSA6AJ-100W	MG RESISTOR	10Ω,1/16W J	
R2225	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R2226	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R2229	NRSA6AJ-564W	MG RESISTOR	560kΩ,1/16W J	
R2230	NRSA6AJ-564W	MG RESISTOR	560kΩ,1/16W J	
R2231	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W J	
R2401	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W J	
R2402	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W J	
R2403	NRSA6AJ-183W	MG RESISTOR	18kΩ,1/16W J	
R2406	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R2407	NRSA6AJ-100W	MG RESISTOR	10Ω,1/16W J	
R2601	NRSA6AJ-182W	MG RESISTOR	1.8kΩ,1/16W J	
R2602	NRSA6AJ-182W	MG RESISTOR	1.8kΩ,1/16W J	
R2607	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W J	
R2608	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W J	
R2609	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W J	
R2610	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W J	
R3002	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
R3004	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	

⚠ Symbol No.	Part No.	Part Name	Description	Local
R3005	NRSA6AJ-100W	MG RESISTOR	10Ω,1/16W J	
R3006	NRSA6AJ-100W	MG RESISTOR	10Ω,1/16W J	
R3007	NRSA6AJ-562W	MG RESISTOR	5.6kΩ,1/16W J	
R3008	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W J	
R3009	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
R3010	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
R3011	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W J	
R3013	NRSA6AJ-242W	MG RESISTOR	2.4kΩ,1/16W J	
R3014	NRSA6AJ-392W	MG RESISTOR	3.9kΩ,1/16W J	
R3015	NRSA6AJ-392W	MG RESISTOR	3.9kΩ,1/16W J	
R3016	NRVA6AD-560W	CMF RESISTOR	56Ω,1/16W D	
R3017	NRVA6AD-560W	CMF RESISTOR	56Ω,1/16W D	
R3018	NRVA6AD-560W	CMF RESISTOR	56Ω,1/16W D	
R3019	NRVA6AD-560W	CMF RESISTOR	56Ω,1/16W D	
R3020	NRVA6AD-512W	CMF RESISTOR	5.1kΩ,1/16W D	
R3021	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R3025	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R3027	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
R3029	NRSA6AJ-822W	MG RESISTOR	8.2kΩ,1/16W J	
R3030	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W J	
R3031	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W J	
R3032	NRSA6AJ-105W	MG RESISTOR	1MΩ,1/16W J	
R3034	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W J	
R3036	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
R3037	NRSA6AJ-681W	MG RESISTOR	680Ω,1/16W J	
R3057	NRSA6AJ-151W	MG RESISTOR	150Ω,1/16W J	
R3066	NRSA6AJ-561W	MG RESISTOR	560Ω,1/16W J	
R3067	NRSA6AJ-561W	MG RESISTOR	560Ω,1/16W J	
R3068	NRSA6AJ-181W	MG RESISTOR	180Ω,1/16W J	
R3069	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W J	
R3071	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R3074	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
R3081	NRSA6AJ-471W	MG RESISTOR	470Ω,1/16W J	
R3083	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R3701	NRSA6AD-271W	MG RESISTOR	270Ω,1/16W D	
R3702	NRSA6AD-271W	MG RESISTOR	270Ω,1/16W D	
R3703	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W J	
R3704	NRSA6AD-301W	MG RESISTOR	300Ω,1/16W D	
R3705	NRSA6AD-301W	MG RESISTOR	300Ω,1/16W D	
R3706	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W J	
R3707	NRSA6AD-680W	MG RESISTOR	68Ω,1/16W D	
R3708	NRSA6AD-680W	MG RESISTOR	68Ω,1/16W D	
R3709	NRSA6AD-680W	MG RESISTOR	68Ω,1/16W D	
R3710	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
R3711	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
R3712	NRSA6AJ-105W	MG RESISTOR	1MΩ,1/16W J	
R3713	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
R3714	NRSA6AJ-823W	MG RESISTOR	82kΩ,1/16W J	
R3715	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
R3722	NRSA6AD-131W	MG RESISTOR	130Ω,1/16W D	
R3724	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W J	
R3725	NRSA6AD-131W	MG RESISTOR	130Ω,1/16W D	
R3726	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W J	
R3727	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W J	
R3728	NRSA6AD-131W	MG RESISTOR	130Ω,1/16W D	
R3730	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W J	
R3731	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W J	
R3732	NRSA6AJ-101W	MG RESISTOR	100Ω,1/16W J	
R3733	NRSA6AD-561W	MG RESISTOR	560Ω,1/16W D	
R3734	NRSA6AJ-822W	MG RESISTOR	8.2kΩ,1/16W J	
R3735	NRSA6AD-182W	MG RESISTOR	1.8kΩ,1/16W D	
R3736	NRSA6AJ-183W	MG RESISTOR	18kΩ,1/16W J	
R3737	NRSA6AJ-183W	MG RESISTOR	18kΩ,1/16W J	
R3738	NRSA6AJ-681W	MG RESISTOR	680Ω,1/16W J	
R3739	NRSA6AJ-821W	MG RESISTOR	820Ω,1/16W J	
R3740	NRSA6AJ-821W	MG RESISTOR	820Ω,1/16W J	
R3741	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R3742	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
R3743	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
R3744	NRSA6AD-561W	MG RESISTOR	560Ω,1/16W D	

MODEL	MARK	MODEL	MARK
GR-D50AA	A	GR-D50AS	C
GR-D50AG	B	GR-D51AG	D

⚠ Symbol No.	Part No.	Part Name	Description	Local
R3745	NRSA6AD-152W	MG RESISTOR	1.5kΩ,1/16W D	
R3746	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W J	
R3747	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R3748	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W J	
R3801	NRSA6AJ-101W	MG RESISTOR	100Ω,1/16W J	
R3802	NRSA6AD-821W	MG RESISTOR	820Ω,1/16W D	
R3803	NRSA6AD-273W	MG RESISTOR	27kΩ,1/16W D	
R3804	NRSA6AD-153W	MG RESISTOR	15kΩ,1/16W D	
R3805	NRSA6AD-821W	MG RESISTOR	820Ω,1/16W D	
R3807	NRSA6AJ-220W	MG RESISTOR	22Ω,1/16W J	
R4201	NRSA6AJ-333W	MG RESISTOR	33kΩ,1/16W J	
R4202	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4203	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4204	NRSA6AJ-220W	MG RESISTOR	22Ω,1/16W J	
R4205	NRSA6AJ-220W	MG RESISTOR	22Ω,1/16W J	
R4301	NRSA6AJ-220W	MG RESISTOR	22Ω,1/16W J	
R4303	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4304	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4306	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4307	NRSA6AJ-470W	MG RESISTOR	47Ω,1/16W J	
R4308	NRSA6AJ-470W	MG RESISTOR	47Ω,1/16W J	
R4309	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4310	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4315	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4317	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4319	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4321	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4326	NRSA6AJ-470W	MG RESISTOR	47Ω,1/16W J	
R4327	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4328	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4329	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4330	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4331	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4332	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4333	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4334	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4335	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4336	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4337	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4338	NRSA6AJ-220W	MG RESISTOR	22Ω,1/16W J	
R4339	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4341	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4342	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4343	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4344	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4345	NRSA6AJ-220W	MG RESISTOR	22Ω,1/16W J	
R4346	NRSA6AJ-220W	MG RESISTOR	22Ω,1/16W J	
R4348	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4349	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4350	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4351	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4352	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4353	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4354	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4355	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4356	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4804	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R4805	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
R4806	NRSA6AJ-683W	MG RESISTOR	68kΩ,1/16W J	
R4807	NRSA6AJ-823W	MG RESISTOR	82kΩ,1/16W J	
R4808	NRSA6AJ-243W	MG RESISTOR	24kΩ,1/16W J	
R4809	NRSA6AJ-681W	MG RESISTOR	680Ω,1/16W J	
R4810	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
R4811	NRSA6AJ-824W	MG RESISTOR	820kΩ,1/16W J	
R4812	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W J	
R4814	NRSA6AJ-105W	MG RESISTOR	1MΩ,1/16W J	
R4815	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W J	
R4816	NRSA6AJ-105W	MG RESISTOR	1MΩ,1/16W J	
R4817	NRSA6AJ-334W	MG RESISTOR	330kΩ,1/16W J	
R4818	NRSA6AJ-154W	MG RESISTOR	150kΩ,1/16W J	
R4819	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
R4820	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
R4821	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
R4822	NRSA6AJ-333W	MG RESISTOR	33kΩ,1/16W J	
R4823	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R4824	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W J	
R4827	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4828	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4833	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
R4836	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R4841	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4842	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4843	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4844	NRSA6AJ-151W	MG RESISTOR	150Ω,1/16W J	
R4854	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4856	NRSA6AJ-6R8W	MG RESISTOR	6.8Ω,1/16W J	
R4857	NRSA6AJ-6R8W	MG RESISTOR	6.8Ω,1/16W J	
R4858	NRSA6AJ-333W	MG RESISTOR	33kΩ,1/16W J	
R4859	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4860	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4862	NRSA6AJ-6R8W	MG RESISTOR	6.8Ω,1/16W J	
R4863	NRSA6AJ-6R8W	MG RESISTOR	6.8Ω,1/16W J	
R4864	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R4865	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R4866	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R4867	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R4868	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4870	NRSA6AJ-271W	MG RESISTOR	270Ω,1/16W J	
R4871	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4874	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R4875	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R5501	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R5503	NRSA6AJ-220W	MG RESISTOR	22Ω,1/16W J	
R5504	NRSA6AJ-220W	MG RESISTOR	22Ω,1/16W J	
R5505	NRSA6AJ-220W	MG RESISTOR	22Ω,1/16W J	
R5506	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R5507	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R5509	NRSA6AJ-470W	MG RESISTOR	47Ω,1/16W J	
R5511	NRSA6AJ-470W	MG RESISTOR	47Ω,1/16W J	
R5512	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R5513	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R5514	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R6021	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R6022	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R6023	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R6024	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
R6025	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R6026	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R6027	NRSA6AD-103W	MG RESISTOR	10kΩ,1/16W D	
R6028	NRSA6AD-751W	MG RESISTOR	750Ω,1/16W D	
R6029	NRSA6AD-103W	MG RESISTOR	10kΩ,1/16W D	
R6030	NRSA6AJ-333W	MG RESISTOR	33kΩ,1/16W J	
R6031	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W J	
R6033	NRSA6AJ-562W	MG RESISTOR	5.6kΩ,1/16W J	
R6034	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W J	
R6035	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
R6036	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
R6037	NRSA6AD-153W	MG RESISTOR	15kΩ,1/16W D	
R6038	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
R6039	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
R6040	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
R6042	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W J	
R6044	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W J	
R6102	NRVA6AD-223W	CMF RESISTOR	22kΩ,1/16W D	
R6103	NRVA6AD-103W	CMF RESISTOR	10kΩ,1/16W D	
R6104	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W J	
R6105	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
R6106	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W J	
R6107	NRSA6AD-183W	MG RESISTOR	18kΩ,1/16W D	
R6108	NRSA6AD-123W	MG RESISTOR	12kΩ,1/16W D	

MODEL	MARK	MODEL	MARK
GR-D50AA	A	GR-D50AS	C
GR-D50AG	B	GR-D51AG	D

⚠	Symbol No.	Part No.	Part Name	Description	Local
	R6109	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W J	
	R6202	NRSA6AD-123W	MG RESISTOR	12kΩ,1/16W D	
	R6203	NRSA6AD-153W	MG RESISTOR	15kΩ,1/16W D	
	R6302	NRSA6AD-183W	MG RESISTOR	18kΩ,1/16W D	
	R6303	NRSA6AD-472W	MG RESISTOR	4.7kΩ,1/16W D	
	R6305	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R6306	NRSA6AJ-123W	MG RESISTOR	12kΩ,1/16W J	
	R6308	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W J	
	R6309	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W J	
	R6402	NRSA6AD-243W	MG RESISTOR	24kΩ,1/16W D	
	R6403	NRSA6AD-302W	MG RESISTOR	3kΩ,1/16W D	
	R6405	NRSA6AJ-123W	MG RESISTOR	12kΩ,1/16W J	
	R6406	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
	R6407	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R6502	NRSA6AD-473W	MG RESISTOR	47kΩ,1/16W D	
	R6503	NRSA6AD-562W	MG RESISTOR	5.6kΩ,1/16W D	
	R6505	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W J	
	R6506	NRSA6AJ-273W	MG RESISTOR	27kΩ,1/16W J	
	R6602	NRSA6AD-114W	MG RESISTOR	110kΩ,1/16W D	
	R6603	NRSA6AD-392W	MG RESISTOR	3.9kΩ,1/16W D	
	R6604	NRSA6AD-114W	MG RESISTOR	110kΩ,1/16W D	
	R6605	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W J	
	R6606	NRSA6AD-104W	MG RESISTOR	100kΩ,1/16W D	
	R6607	NRSA6AD-473W	MG RESISTOR	47kΩ,1/16W D	
	R6608	NRSA6AJ-273W	MG RESISTOR	27kΩ,1/16W J	
	R6609	NRSA6AJ-822W	MG RESISTOR	8.2kΩ,1/16W J	
	R6610	NRSA6AD-473W	MG RESISTOR	47kΩ,1/16W D	
	R6611	NRSA6AD-683W	MG RESISTOR	68kΩ,1/16W D	
	R6612	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W J	
	R6613	NRSA6AJ-823W	MG RESISTOR	82kΩ,1/16W J	
	R6614	NRSA6AD-104W	MG RESISTOR	100kΩ,1/16W D	
	R6615	NRSA6AD-104W	MG RESISTOR	100kΩ,1/16W D	
	R6616	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W J	
	R6617	NRSA6AJ-333W	MG RESISTOR	33kΩ,1/16W J	
	R6618	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R6619	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W J	
	R6701	NRZ0058-R20X	MG RESISTOR	0.2Ω,1/2W	
	R6702	NRSA6AD-114W	MG RESISTOR	110kΩ,1/16W D	
	R6703	NRSA6AD-153W	MG RESISTOR	15kΩ,1/16W D	
	R6704	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W J	
	R6706	NRSA6AD-823W	MG RESISTOR	82kΩ,1/16W D	
	R6707	NRSA6AD-333W	MG RESISTOR	33kΩ,1/16W D	
	R6801	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R6803	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R6804	NRVA6AD-563W	CMF RESISTOR	56kΩ,1/16W D	
⚠	R6805	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W J	
	R6813	NRVA6AD-273W	CMF RESISTOR	27kΩ,1/16W D	
	R6815	NRSA6AJ-681W	MG RESISTOR	680Ω,1/16W J	
	R8701	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R8702	NRS181J-220X	MG RESISTOR	22Ω,1/8W J	
	R8703	NRS181J-220X	MG RESISTOR	22Ω,1/8W J	
	R8704	NRSA6AJ-105W	MG RESISTOR	1MΩ,1/16W J	
	R8705	NRSA6AJ-152W	MG RESISTOR	1.5kΩ,1/16W J	
	R8706	NRSA6AJ-334W	MG RESISTOR	330kΩ,1/16W J	
	R8707	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R8708	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R8709	NRSA6AJ-105W	MG RESISTOR	1MΩ,1/16W J	
	R8710	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R8711	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R8712	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R8713	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R8715	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R8716	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R8717	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R8718	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R8720	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R8721	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	
	R8722	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W J	
	R8723	NRSA6AJ-334W	MG RESISTOR	330kΩ,1/16W J	
	R8724	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W J	

⚠	Symbol No.	Part No.	Part Name	Description	Local
	RA1001	NRZ0034-473W	NET RESISTOR		
	RA1002	NRZ0034-104W	NET RESISTOR		
	RA1004	NRZ0034-104W	NET RESISTOR		
	RA1005	NRZ0034-103W	NET RESISTOR		
	RA1006	NRZ0034-102W	NET RESISTOR		
	RA1007	NRZ0034-102W	NET RESISTOR		
	RA1008	NRZ0034-104W	NET RESISTOR		
	RA3001	NRZ0034-560W	NET RESISTOR		
	RA3002	NRZ0034-560W	NET RESISTOR		
	RA3003	NRZ0034-100W	NET RESISTOR		
	RA3004	NRZ0034-103W	NET RESISTOR		
	RA3005	NRZ0040-0R0X	NET RESISTOR		
	L1001	NQL402M-100X	INDUCTOR	10μH	
	L1002	NQL402M-100X	INDUCTOR	10μH	
	L2101	NQL315K-100X	INDUCTOR	10μH	
	L2401	NQL402M-100X	INDUCTOR	10μH	
	L2402	NQL402M-100X	INDUCTOR	10μH	
	L2604	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W J	
	L3001	NQR0129-002X	FERRITE BEADS		
	L3002	NQR0129-002X	FERRITE BEADS		
	L3004	NQR0006-001X	FERRITE BEADS		
	L3005	NQR0006-001X	FERRITE BEADS		
	L3007	NQL085J-2R2X	INDUCTOR	2.2μH	
	L3008	NQL085J-120X	INDUCTOR	12μH	
	L3012	NQR0129-002X	FERRITE BEADS		
	L3014	NQL38DK-100X	P COIL	10μH	
	L3015	NQR0006-001X	FERRITE BEADS		
	L3701	NQL38DK-100X	P COIL	10μH	
	L3731	NQL085J-6R8X	INDUCTOR	6.8μH	
	L3732	NQL085J-6R8X	INDUCTOR	6.8μH	
	L3801	NQR0129-002X	FERRITE BEADS		
	L3802	NQR0129-002X	FERRITE BEADS		
	L3803	NQR0006-001X	FERRITE BEADS		
	L3804	NQL38DK-100X	P COIL	10μH	
	L4201	NQR0129-002X	FERRITE BEADS		
	L4301	NQR0129-002X	FERRITE BEADS		
	L4302	NQR0129-002X	FERRITE BEADS		
	L4802	NQL302N-100X	INDUCTOR	10μH	
	L4851	NQR0129-002X	FERRITE BEADS		
	L4852	NQL315K-100X	INDUCTOR	10μH	
	L4853	NQL315K-100X	INDUCTOR	10μH	
	L5501	NQL315K-100X	INDUCTOR	10μH	
	L5502	NQR0129-002X	FERRITE BEADS		
	L5503	NQR0129-002X	FERRITE BEADS		
	L5504	NQR0129-002X	FERRITE BEADS		
	L5505	NQL315K-100X	INDUCTOR	10μH	
	L5506	NQL315K-100X	INDUCTOR	10μH	
	L6001	NQLZ011-4R7X	INDUCTOR	4.7μH	
	L6002	NQLZ011-4R7X	INDUCTOR	4.7μH	
	L6101	NQL52EM-390X	INDUCTOR	39μH	
	L6201	NQL52EM-390X	INDUCTOR	39μH	
	L6301	NQL52EM-390X	INDUCTOR	39μH	
	L6302	NQL144K-220X	P COIL	22μH	
	L6401	NQL52EM-470X	INDUCTOR	47μH	
	L6501	NQL52EM-470X	INDUCTOR	47μH	
	L6601	NQL52EM-221X	INDUCTOR	220μH	
	L6701	NQL73EM-100X	INDUCTOR	10μH	
	L6801	NQL034K-470X	P COIL	47μH	
	L8701	NQR0129-002X	FERRITE BEADS		
	L8702	NQR0129-002X	FERRITE BEADS		
	CN101	QGF0528F1-40X	CONNECTOR	FFC/FPC(1-40)	
	CN102	QGF0505F1-22X	CONNECTOR	FFC/FPC(1-22)	
	CN104	QGA1002C1-11X	CONNECTOR	W-B(1-11)	
	CN105	QGB0509M1-30X	CONNECTOR	B-B(1-30)	
	CN106	QGA1201C2-05X	CONNECTOR	W-B(1-5)	
	CN107	QGF0503C1-20X	CONNECTOR	FFC/FPC(1-20)	
	CN108	QGF0503C1-24V	CONNECTOR	FFC/FPC(1-24)	
	CN109	QGF0503F1-16X	CONNECTOR	FFC/FPC(1-16)	
	CN110	QGF0528F1-40X	CONNECTOR	FFC/FPC(1-40)	
	CN111	QGF0528F1-40X	CONNECTOR	FFC/FPC(1-40)	

MODEL	MARK	MODEL	MARK
GR-D50AA	A	GR-D50AS	C
GR-D50AG	B	GR-D51AG	D

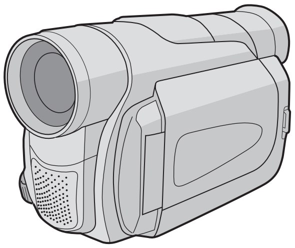
⚠	Symbol No.	Part No.	Part Name	Description	Local
⚠	F6001	NMFZ007-2R0X-K	FUSE	2A 32V	
⚠	F6301	NMFZ007-1R25X-K	FUSE	1.25A 32V	
⚠	F6701	NMFZ007-1R25X-K	FUSE	1.25A 32V	
⚠	F6801	NMFZ007-R50X-K	FUSE	0.5A 50V	
	J501	NNZ0041-001X	D CONNECTOR	IEEE1394(4pin)	
	J502	QNZ0616-001	USB CONNECTOR		
	X1001	NAX0578-001X	CRYSTAL		
	X1002	NAX0564-001X	CRYSTAL		
	X3002	NAX0480-001X	CRYSTAL	24.576MHz	
	X5501	NAX0587-001X	CXO		
	X8701	NAX0398-001X	C OSCILLATOR		
	OT1	LY30030-069A	SPACER(A)		
	OT2	LY44158-001A	SHEET(SHIELD)		
	WR1	QAL0474-001	FPC,MAN-PREMDA CN401		
	WR2	QAL0474-001	FPC,MAN-PREMDA CN408		

JVC

SERVICE MANUAL

DIGITAL VIDEO CAMERA

GR-D20EK,GR-D20EX,GR-D20EY,GR-D20EZ,GR-D21EK, GR-D40EK,GR-D40EX,GR-D40EY,GR-D40EZ



Mini DV PAL

For disassembling and assembling of MECHANISM ASSEMBLY, refer to the SERVICE MANUAL No.86700 (MECHANISM ASSEMBLY).

SPECIFICATION

Camcorder

General

Power supply	: DC 11.0 V ⎓ (Using AC Adapter) DC 7.2 V ⎓ (Using battery pack)
Power consumption	
LCD monitor off, viewfinder on	: Approx. 3.4 W
LCD monitor on, viewfinder off	: Approx. 4.7 W
Dimensions (W x H x D)	: 69 mm x 94 mm x 143 mm (with the LCD monitor closed and the viewfinder pushed back in)
Weight	: Approx. 525 g
Operating temperature	: 0°C to 40°C
Operating humidity	: 35% to 80%
Storage temperature	: -20°C to 50°C
Pickup	: 1/6" CCD
Lens	: F 1.6, f = 2.7 mm to 43.2 mm, 16:1 power zoom lens
Filter diameter	: Ø37 mm
LCD monitor	: 2.5" diagonally measured, LCD panel/TFT active matrix system
Viewfinder	: Electronic viewfinder with 0.24" black/white LCD
Speaker	: Monaural

Digital Video Camera

Format	: DV format (SD mode)
Signal format	: PAL standard
Recording/Playback format	: Video: Digital component recording : Audio: PCM digital recording, 32 kHz 4-channel (12-bit), 48 kHz 2-channel (16-bit)
Cassette	: Mini DV cassette
Tape speed	: SP : 18.8 mm/s LP : 12.5 mm/s
Maximum recording time (using 80 min. cassette)	: SP : 80 min. LP : 120 min.

Connectors

S-Video	
Output	: Y : 1 V (p-p), 75 Ω, analogue C : 0.29 V (p-p), 75 Ω, analogue
Input*	: Y : 0.8 V (p-p) -1.2 V (p-p), 75 Ω, analogue C : 0.2 V (p-p) -0.4 V (p-p), 75 Ω, analogue
AV	
Video output	: 1 V (p-p), 75 Ω, analogue
Video input*	: 0.8 V (p-p) -1.2 V (p-p), 75 Ω, analogue
Audio output	: 300 mV (rms), 1 kΩ, analogue, stereo
Audio input*	: 300 mV (rms), 50 kΩ, analogue, stereo
DV	
Output	: 4-pin, IEEE 1394 compliant
Input*	: 4-pin, IEEE 1394 compliant
USB**	: 5-pin
EDIT	Ø3.5 mm, 2-pole

* GR-D50/D30 only
** GR-D50/D40 only

AC Adapter

Power requirement	AC 110 V to 240 V ~, 50 Hz/60 Hz
Output	: DC 11 V ⎓, 1 A

Specifications shown are for SP mode unless otherwise indicated. E & O.E. Design and specifications subject to change without notice.

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No.86730
2003/04

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MODEL	GR-D20EK	GR-D20EX	GR-D20EY	GR-D20EZ	GR-D21EK	GR-D40EK	GR-D40EX	GR-D40EY	GR-D40EZ
DIGITAL INTERFACE	NO	NO	NO	NO	NO	USB	USB	USB	USB
POWER CORD	BS TYPE	CEE TYPE	CEE TYPE	CEE TYPE	BS TYPE	BS TYPE	CEE TYPE	CEE TYPE	CEE TYPE
USB CABLE	NO	NO	NO	NO	NO	YES	YES	YES	YES
CD-ROM	NO	NO	NO	NO	NO	YES	YES	YES	YES

SECTION 1
PRECAUTIONS

1.1 SAFTY PRECAUTIONS

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold.However,in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

1.1.1 Precautions during Servicing

(1) Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product.When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

(2) Parts identified by the ⚠symbol and shaded (▨) parts are critical for safety.
Replace only with specified part numbers.
NOTE :
Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

(3) Fuse replacement caution notice.
Caution for continued protection against fire hazard.
Replace only with same type and rated fuse(s) as specified.

(4) Use specified internal wiring. Note especially:
- Wires covered with PVC tubing
- Double insulated wires
- High voltage leads

(5) Use specified insulating materials for hazardous live parts. Note especially:
- Insulation Tape
- PVC tubing
- Spacers
- Insulation sheets for transistors
- Barrier

(6) When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

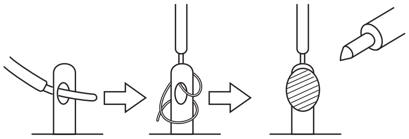


Fig.1-1-1

(7) Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

(8) Check that replaced wires do not contact sharp edged or pointed parts.

(9) When a power cord has been replaced, check that 10-15 kg of force in any direction will not loosen it.

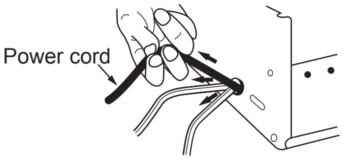


Fig.1-1-2

(10) Also check areas surrounding repaired locations.

(11) Products using cathode ray tubes (CRTs)In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits.Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

(12) Crimp type wire connector
In such cases as when replacing the power transformer in sets where the connections between the power cord and power trans former primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.
- **Connector part number** :E03830-001
- **Required tool** : Connector crimping tool of the proper type which will not damage insulated parts.
- **Replacement procedure**
  a) Remove the old connector by cutting the wires at a point close to the connector.
  Important : Do not reuse a connector (discard it).

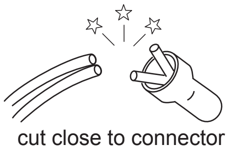


Fig.1-1-3

  b) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

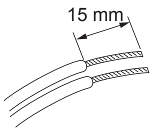


Fig.1-1-4

  c) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

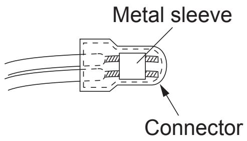


Fig.1-1-5

  d) As shown in Fig.1-1-6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

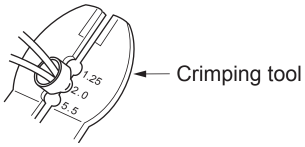


Fig.1-1-6

  e) Check the four points noted in Fig.1-1-7.

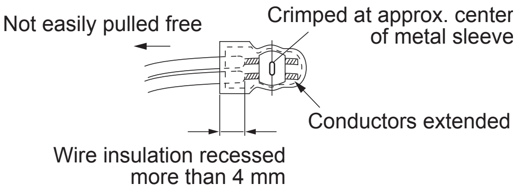

Not easily pulled free
Crimped at approx. center of metal sleeve
Conductors extended
Wire insulation recessed more than 4 mm

Fig.1-1-7

1.1.2 Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions, Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

(1) Insulation resistance test
Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).
See table 1 below.

(2) Dielectric strength test
Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See Fig.1-1-11 below.

(3) Clearance distance
When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See Fig.1-1-11 below.

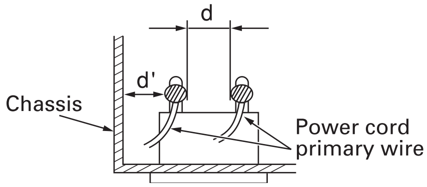


Fig.1-1-8

(4) Leakage current test
Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).
Measuring Method : (Power ON)
Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z.
See Fig.1-1-9 and following Fig.1-1-12.

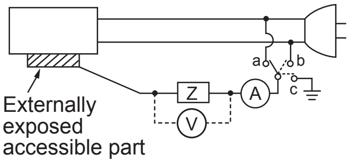
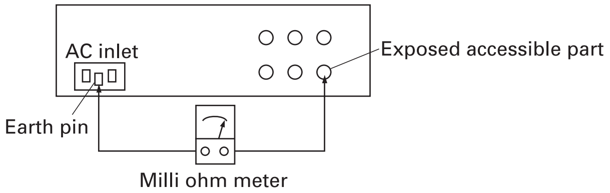


Fig.1-1-9

(5) Grounding (Class 1 model only)
Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).
Measuring Method:
Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See Fig.1-1-10 and grounding specifications.



Grounding Specifications

Region	Grounding Impedance (Z)
USA & Canada	Z ≦ 0.1 ohm
Europe & Australia	Z ≦ 0.5 ohm

Fig.1-1-10

AC Line Voltage	Region	Insulation Resistance (R)	Dielectric Strength	Clearance Distance (d), (d')
100 V	Japan	R ≧ 1 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3 mm
100 to 240 V			AC 1.5 kV 1 miute	d, d' ≧ 4 mm
110 to 130 V	USA & Canada	1 MΩ ≦ R ≦ 12 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3.2 mm
110 to 130 V 200 to 240 V	Europe & Australia	R ≧ 10 MΩ/500 V DC	AC 3 kV 1 minute (Class Ⅱ) AC 1.5 kV 1 minute (Class Ⅰ)	d ≧ 4 mm d' ≧ 8 mm (Power cord) d' ≧ 6 mm (Primary wire)

Fig.1-1-11

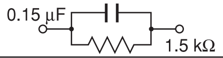
AC Line Voltage	Region	Load Z	Leakage Current (i)	a, b, c
100 V	Japan	1 kΩ	i ≦ 1 mA rms	Exposed accessible parts
110 to 130 V	USA & Canada	 0.15 μF 1.5 kΩ	i ≦ 0.5 mA rms	Exposed accessible parts
110 to 130 V 220 to 240 V	Europe & Australia	2 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Antenna earth terminals
		50 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Other terminals

Fig.1-1-12

NOTE :

These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

2.1 BEFORE ASSEMBLY AND DISASSEMBLY

2.1.1 Precautions

1. Be sure to disconnect the power supply unit prior to mounting and soldering of parts.
2. Prior to removing a component part that needs to disconnect its connector(s) and its screw(s), first disconnect the wire(s) from the connector(s), and then remove the screw(s).
3. When connecting/disconnecting wires, pay enough attention not to damage the connectors.
4. Be careful in removing or handling the part to which some spacer or shield is attached for reinforcement or insulation.
5. When replacing chip parts (especially IC parts), first remove the solder completely to prevent peeling of the pattern.
6. Tighten screws properly during the procedures. Unless specified otherwise, tighten screws at a torque of 0.088N•m (0.9kgf•cm).

2.1.2 Assembly and disassembly

[Example]

STEP No.	PART	Fig. No.	POINT	NOTE
[1]	TOP COVER ASSEMBLY	Fig.C1	S1,2(L1)	-
[2]	UPPER ASSEMBLY (Inc. VF ASSEMBLY, SPEAKER/MONITOR)	Fig.C2-1	S2a,2(S2b),3(S2c) 2(S2d),S2e,S2c L2,CN2a,b	-
[8]	VF ASSEMBLY	Fig.C2-2	2(S8),L8,CN8a	NOTE 8a NOTE 8b

(1) (2) (3) (4) (5)

(1) Order of steps in Procedure
When reassembling, preform the step(s) in the reverse order. These numbers are also used as the identification (location) No. of parts Figures.

(2) Part to be removed or installed.

(3) Fig. No. showing Procedure or Part Location.

C = CABINET
D = CAMERA AND BOARD ASSEMBLY

(4) Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped or unsoldered.

P = Spring
W = Washer
S = Screw
* = Unhook, unlock, release, unplug or unsolder.
2(S3) = 2 Screws (S3)
CN = Connector

(5) Adjustment information for installation.

2.1.3 Destination of connectors

Two kinds of double-arrows in connection tables respectively show kinds of connector/wires.

⇔ : Flat wire
↔ : Wire

[Example]

CONN. No.	CONNECTOR					Pin No.
CN2a	MAIN	CN101	⇔	MONIBW	CN761	40
CN2b	MAIN	CN103	⇔	MINIBW	CN762	10

Remove the parts marked in ▨.

2.1.4 Disconnection of connectors (Wires)

Pull both ends of the connector in the arrow direction, remove the lock and disconnect the flat wire.

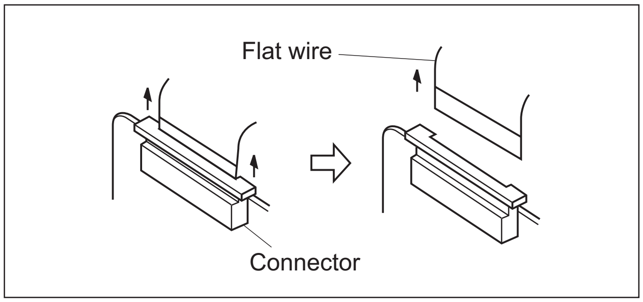


Fig.2-1-1

Extend the locks in the direction of the arrow for unlocking and then pull out the wire. After removing the wire, immediately restore the locks to their original positions because the locks are apt to come off the connector.

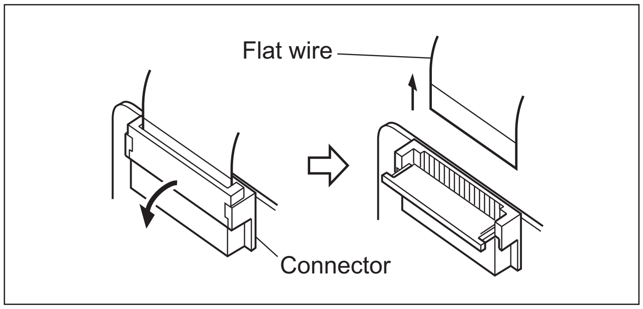


Fig.2-1-2

2.1.5 Tools required for disassembly and assembly

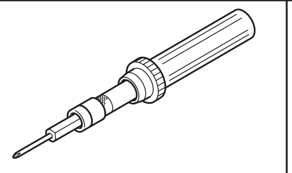
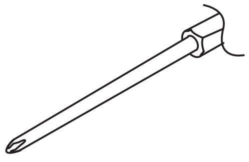
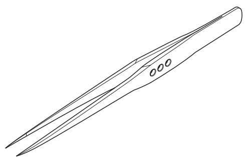
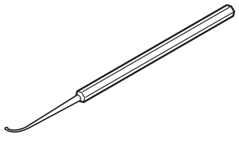
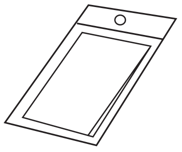
1 Torque driver YTU94088	2 Bit YTU94088-003
	
3 Tweezers P-895	4 Chip IC replacement jig PTS40844-2
	
5 Cleaning cloth KSMM-01	
	

Fig.2-1-3

1.Torque driver
Be sure to use to fastening the mechanism and exterior parts because those parts must strictly be controlled for tightening torque.

2.Bit
This bit is slightly longer than those set in conventional torque drivers.

3.Tweezers
To be used for removing and installing parts and wires.

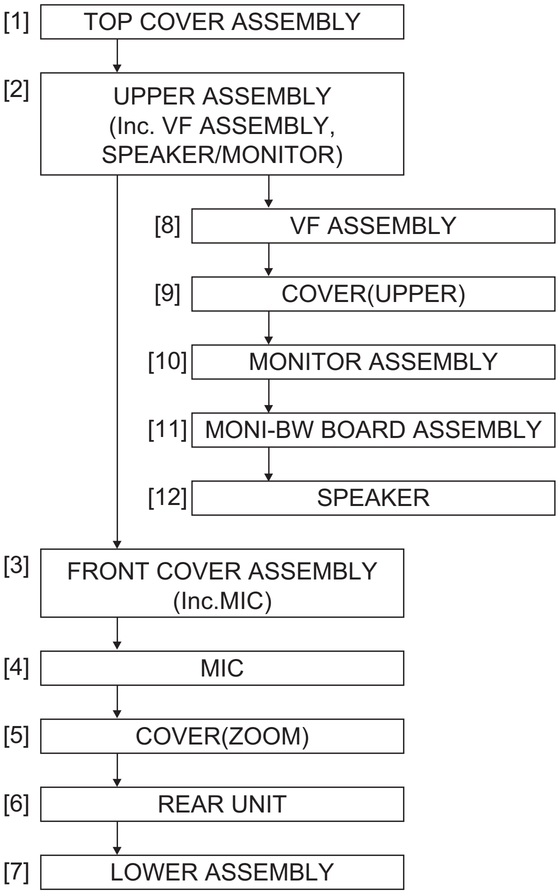
4.Chip IC replacement jig
To be used for replacement of IC.

5.Cleaning cloth
Recommended cleaning cloth to wipe down the video heads, mechanism (tape transport system), optical lens surface.

2.2 ASSEMBLY AND DISASSEMBLY OF CABINET PARTS

2.2.1 Disassembly flow chart

This flowchart indicates the disassembly step for the cabinet parts and board assembly in order to gain access to item(s) to be serviced. When reassembling, perform the step(s) in reverse order.



2.2.2 Disassembly method

STEP No.	PART	Fig. No.	POINT	NOTE
[1]	TOP COVER ASSEMBLY	Fig.C1	S1,2(L1)	-
[2]	UPPER ASSEMBLY (Inc. VF ASSEMBLY, SPEAKER/MONITOR)	Fig.C2-1	S2a,2(S2b),3(S2c) 2(S2d),S2e,S2c L2,CN2a,b	-
[8]	VF ASSEMBLY	Fig.C2-2	2(S8),L8,CN8a	NOTE 8a NOTE 8b
[9] /[10]	COVER(UPPER) MONITOR ASSEMBLY	Fig.C2-3	2(S9),L9 2(S10a),CN10a,2(S10b),L10	- NOTE 10a NOTE 10b
[11] /[12]	MONI-BW BOARD ASSEMBLY SPEAKER	Fig.C2-4	2(S11a),2(S11b),4(S11c) BKT(HINGE),KNOB(SLIDE)	NOTE 11a NOTE 11b NOTE 11c
[3] / [4]	FRONT COVER ASSEMBLY (Inc.MIC) MIC	Fig.C3	COVER(JACK),S3,L3a,L3b CN4 S4	NOTE 3
[5] /[6] /[7]	COVER(ZOOM) REAR UNIT LOWER ASSEMBLY	Fig.C4	S5a,3(S5b),2(L5) CN6,S6 CN7a,b,S7a,3(S7b)	-

CONN. No.	CONNECTOR					Pin No.
CN2a	MAIN	CN101	⇔	MONI-BW	CN761	40
CN2b	MAIN	CN103	⇔	MONI-BW	CN762	10
CN8a	MONI-BW	CN763	⇔	VF ASSEMBLY	-	20
CN10a	MONI-BW	CN765	⇔	BL-2.5/3.5	-	32
CN4	MAIN	CN106	↔	MIC	-	5
CN6	MAIN	CN104	↔	REAR UNIT	-	11
CN7a	MAIN	CN102	⇔	JACK	CN501	22
CN7b	MAIN	CN109	⇔	ZOOM UNIT	-	16

Remove the parts marked in ▨.

NOTE 8a:
Take care not to cut the FPC wire when and after removing the VF ASSEMBLY.

NOTE 8b:
As for disassembly/assembly of [8]VF ASSEMBLY, see 2.4 ASSEMBLY AND DISASSEMBLY OF [8] VF ASSEMBLY.

NOTE 10a:
Take care not to cut the FPC when and after removing the MONITOR ASSEMBLY.

NOTE 10b:
As for disassembly/assembly of [10] MONITOR ASSEMBLY, see 2.5 ASSEMBLY AND DISASSEMBLY OF [10] MONITOR ASSEMBLY.

NOTE 11a:
Before removing the MONI-BW BOARD ASSEMBLY, check whether MEMORY CARD is inserted or not. If MEMORY CARD is inserted, pull out the MEMORY CARD before removing the MONI-BW BOARD ASSEMBLY.

NOTE 11b:
Since the SPEAKER is soldered to the MONI-BW BOARD ASSEMBLY, the SPEAKER should not be separated from the MONI-BW BOARD ASSEMBLY except when replacing the SPEAKER.

NOTE 11c:
Take care not to lose the KNOB(SLIDE). When attaching the KNOB(SLIDE), attach the KNOB(SLIDE) in a proper position.

NOTE 3:
After removing the FRONT COVER ASSEMBLY, OP BLOCK ASSEMBLY is not covered with anything. Take care not to damage the OP BLOCK ASSEMBLY when and after removing the FRONT COVER ASSEMBLY.

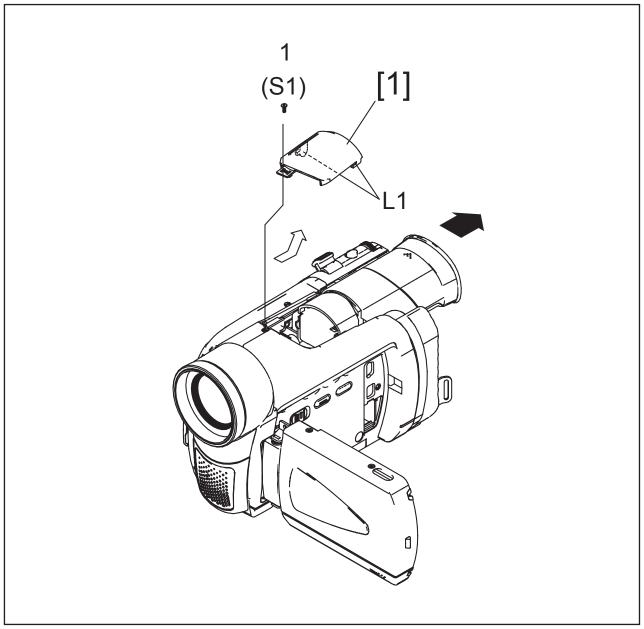


Fig.C1

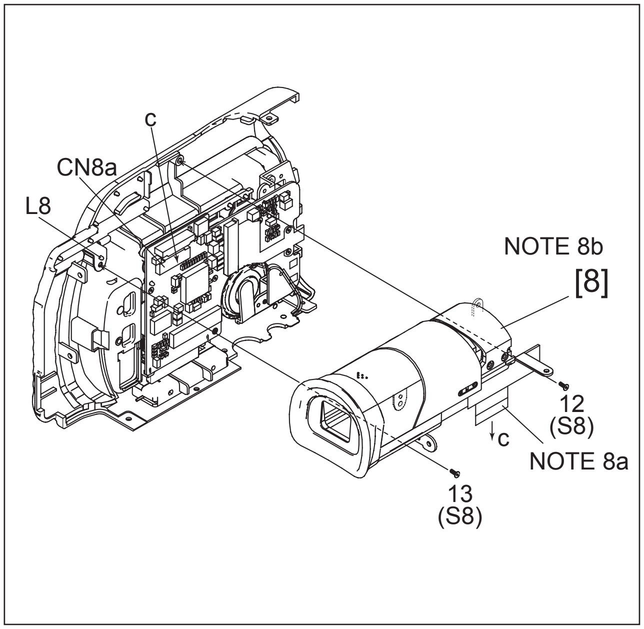

c
CN8a
L8
NOTE 8b
[8]
12
(S8)
c
NOTE 8a
13
(S8)

Fig.C2-2

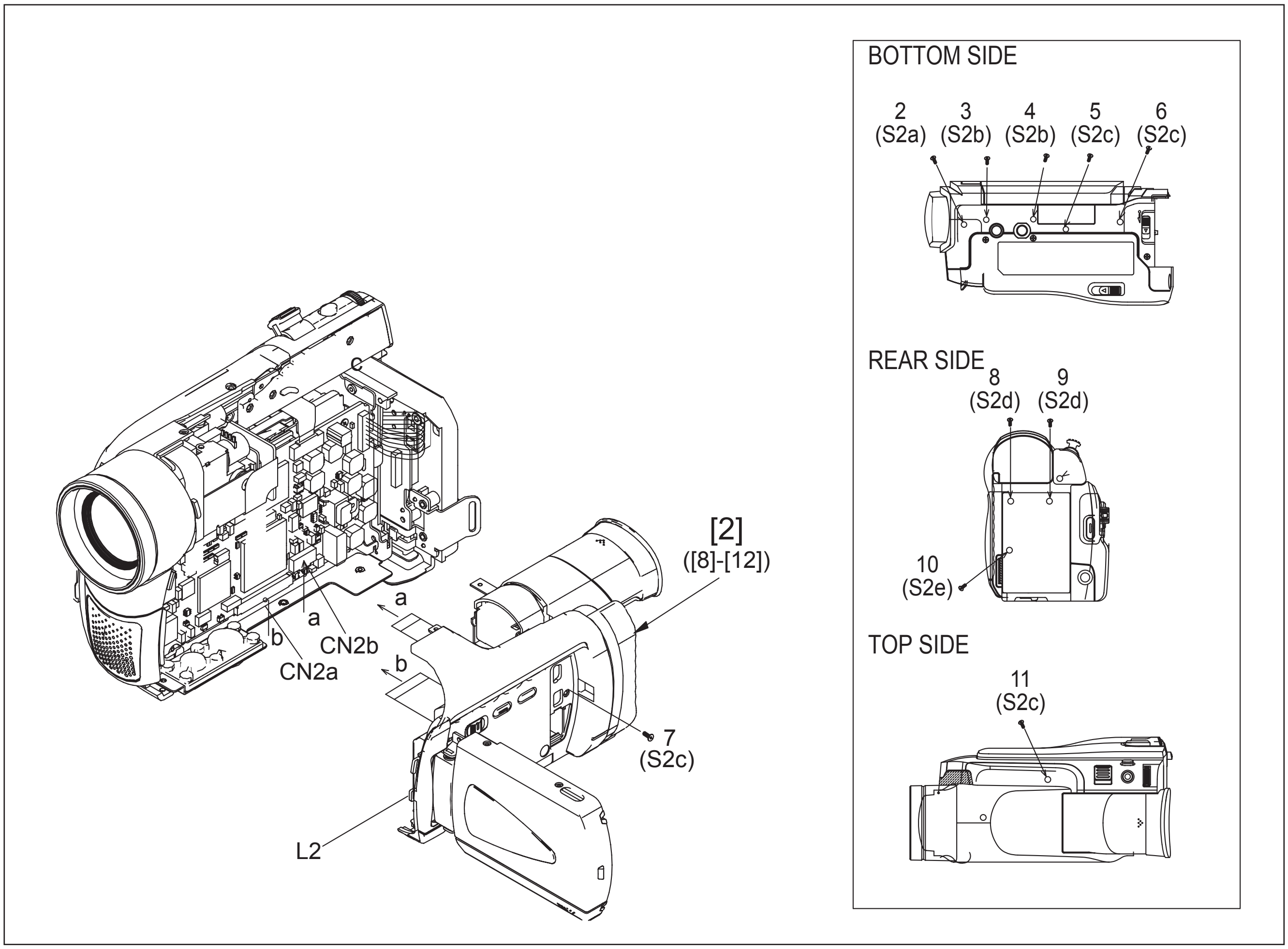

BOTTOM SIDE
2
(S2a)
3
(S2b)
4
(S2b)
5
(S2c)
6
(S2c)
REAR SIDE
8
(S2d)
9
(S2d)
10
(S2e)
TOP SIDE
11
(S2c)
[2]
([8]-[12])
a
a
CN2b
b
b
CN2a
7
(S2c)
L2

Fig.C2-1

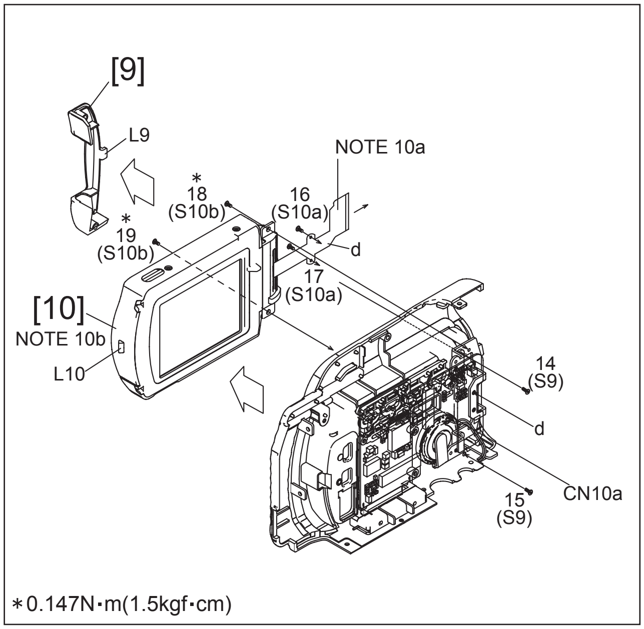

[9]
L9
NOTE 10a
*
18
(S10b)
16
(S10a)
*
19
(S10b)
d
17
(S10a)
[10]
NOTE 10b
L10
14
(S9)
d
CN10a
15
(S9)
*0.147N·m(1.5kgf·cm)

Fig.C2-3

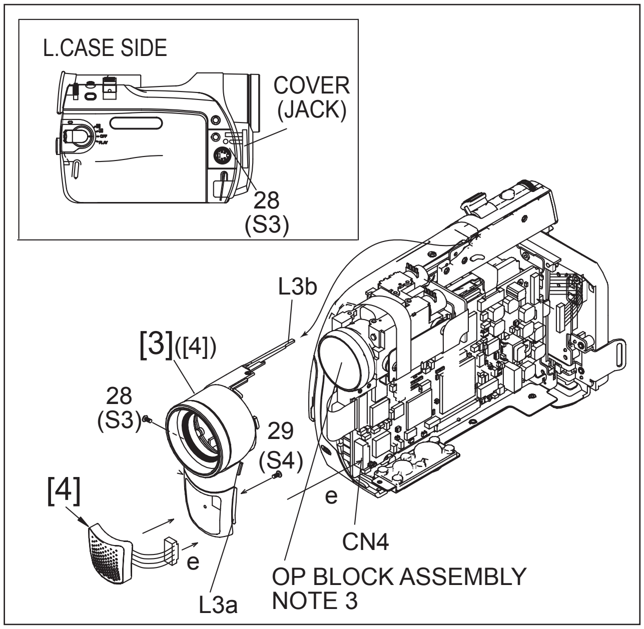

L.CASE SIDE
COVER
(JACK)
28
(S3)
L3b
[3]([4])
28
(S3)
29
(S4)
[4]
e
e
CN4
OP BLOCK ASSEMBLY
NOTE 3
L3a

Fig.C3

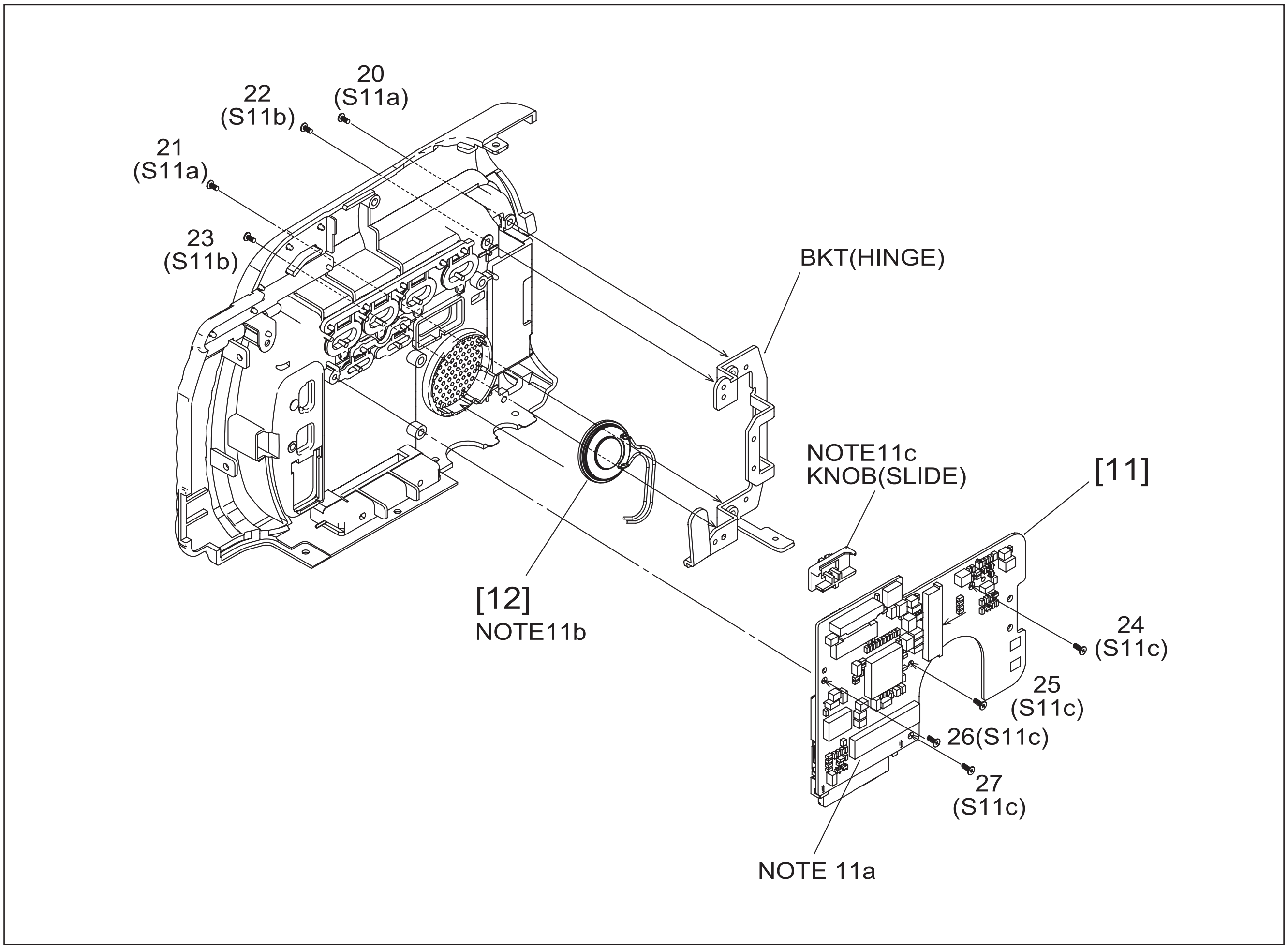

20
(S11a)
22
(S11b)
21
(S11a)
23
(S11b)
BKT(HINGE)
NOTE11c
KNOB(SLIDE)
[11]
[12]
NOTE11b
24
(S11c)
25
(S11c)
26(S11c)
27
(S11c)
NOTE 11a

Fig.C2-4

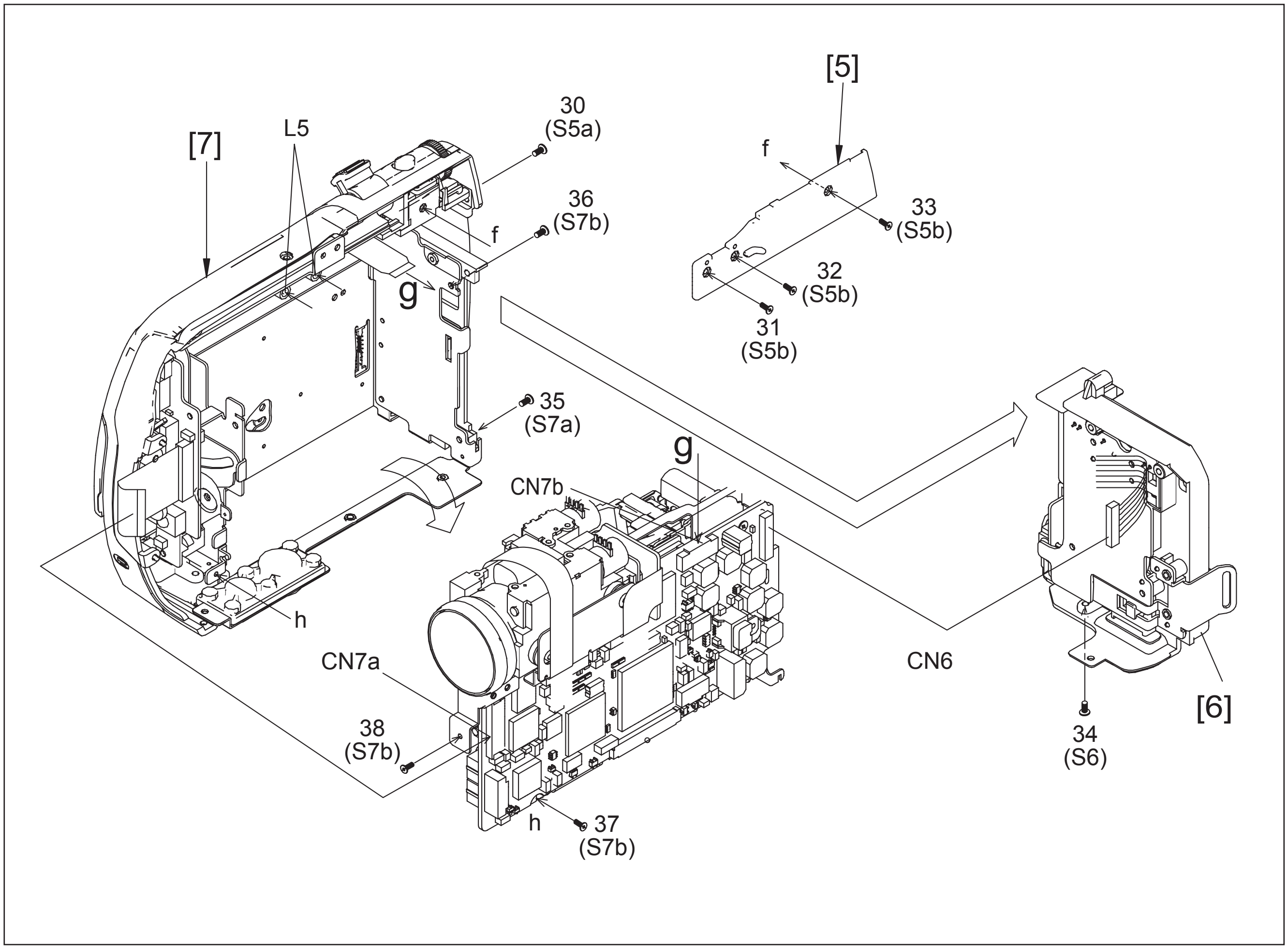

[5]
30
(S5a)
[7]
L5
f
36
(S7b)
33
(S5b)
f
g
32
(S5b)
31
(S5b)
35
(S7a)
g
CN7b
h
CN7a
CN6
[6]
38
(S7b)
34
(S6)
h
37
(S7b)

Fig.C4

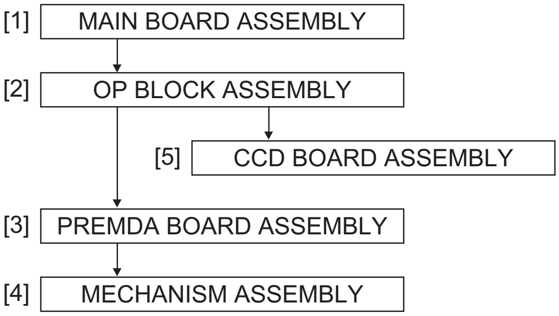
2.3 ASSEMBLY AND DISASSEMBLY OF CAMERA SECTION AND BOARD ASSEMBLY

2.3.1 Disassembly flow chart

This flowchart indicates the disassembly step for the cabinet parts and board assembly in order to gain access to item(s) to be serviced. When reassembling, perform the step(s) in reverse order.

NOTE:

Please see Service Manual No. 86700 (MECHANISM ASSY).


[1] MAIN BOARD ASSEMBLY
[2] OP BLOCK ASSEMBLY
[5] CCD BOARD ASSEMBLY
[3] PREMDA BOARD ASSEMBLY
[4] MECHANISM ASSEMBLY

2.3.2 Disassembly method

STEP No.	PART	Fig. No.	POINT	NOTE
[1]	MAIN BOARD ASSEMBLY	Fig.D1	CN1a,b,2(S1),CN1c,d	-
[2]/[5]	OP BLOCK ASSEMBLY / CCD BOARD ASSEMBLY	Fig.D2	S2,L2	NOTE 2
[3]	PREMDA BOARD ASSEMBLY	Fig.D3	2(S3a),L3,SHIELD COVER(PR) CN3a,b,c,d,e,f,2(S3b)	-
[4]	MECHANISM ASSEMBLY		3(S4),BKT(MECHA)	-

CONN. No.	CONNECTOR					Pin No.
CN1a	MAIN	CN108	⇔	OP BLOCK ASSEMBLY	CN501	24
CN1b	MAIN	CN107	⇔	CCD	CN5001	20
CN1c	MAIN	CN111	⇔	PREMDA	CN408	40
CN1d	MAIN	CN110	⇔	PREMDA	CN401	40
CN3a	PREMDA	CN406	⇔	SENSOR	-	16
CN3b	PREMDA	CN405	⇔	CAPSTAN MOTOR	-	18
CN3c	PREMDA	CN404	⇔	DRUM MOTOR	-	11
CN3d	PREMDA	CN402	⇔	HEAD	-	8
CN3e	PREMDA	CN403	⇔	LOADING MOTOR	-	6
CN3f	PREMDA	CN407	⇔	ROTARY ENCODER	-	6

Remove the parts marked in ▨ .

NOTE 2:

As for disassembly/assembly of [2] OP BLOCK ASSEMBLY, see 2.6 ASSEMBLY AND DISASSEMBLY OF [2] OP BLOCK ASSEMBLY.

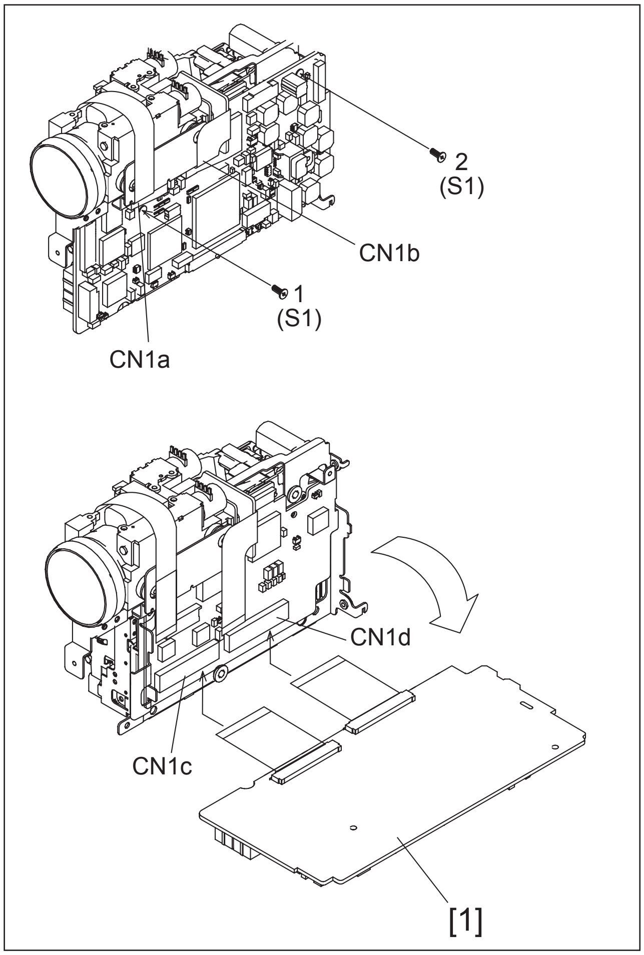

2
(S1)
CN1b
1
(S1)
CN1a
CN1d
CN1c
[1]

Fig.D1

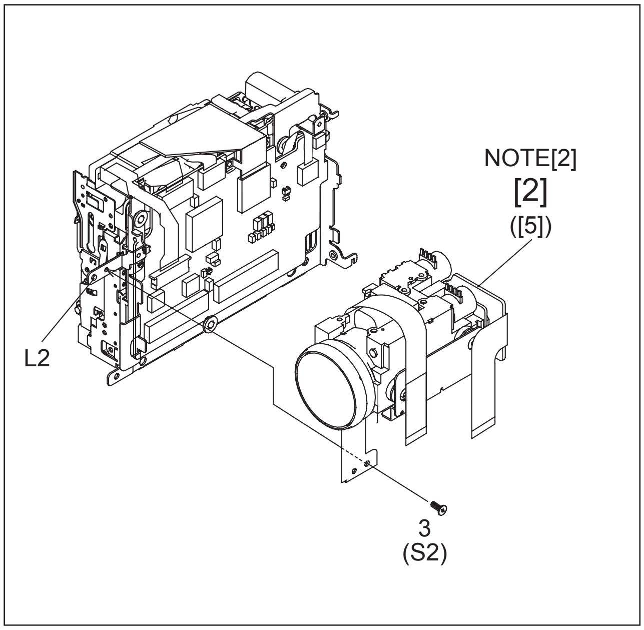
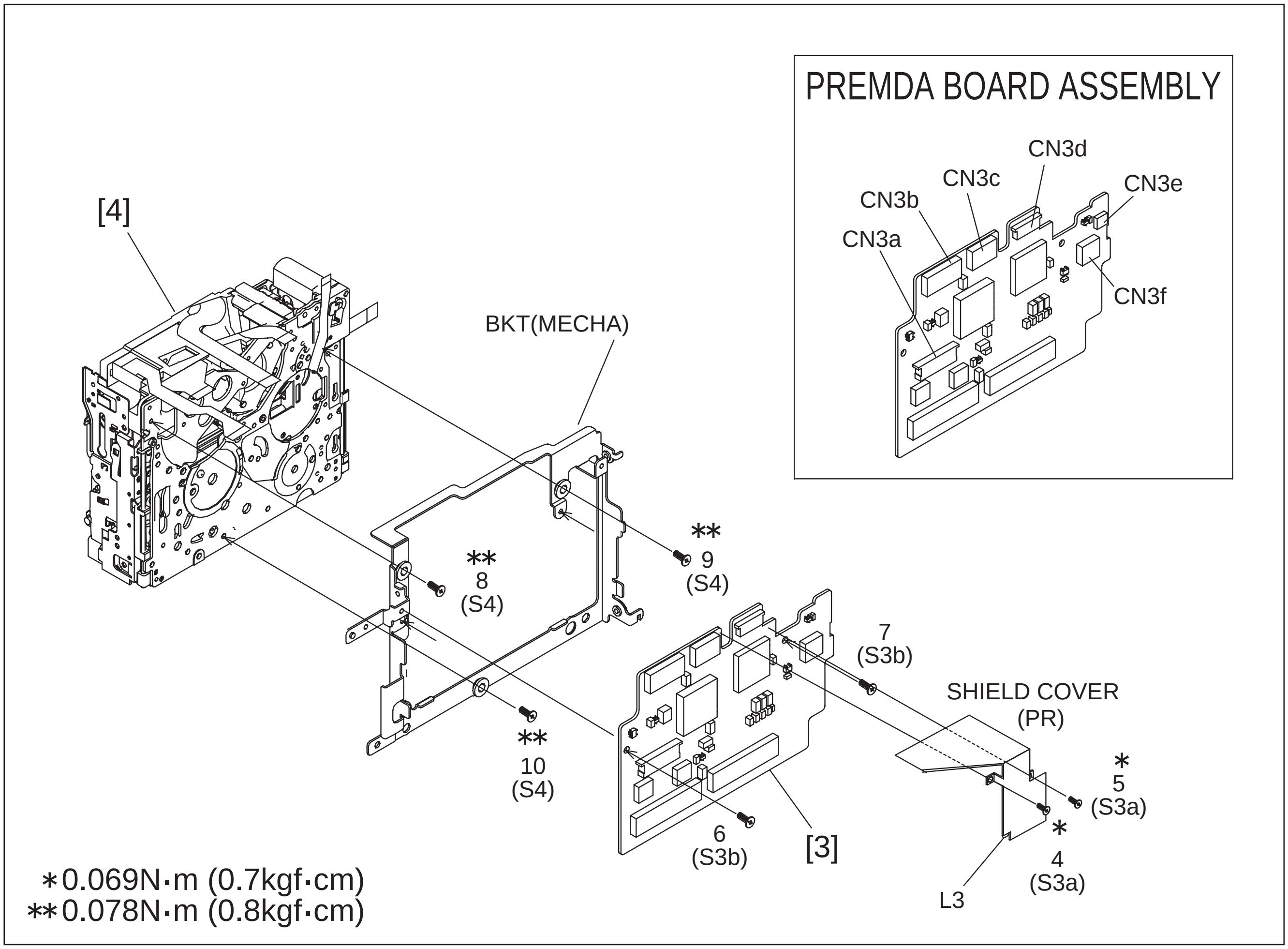

NOTE[2]
[2]
([5])
L2
3
(S2)

Fig.D2


PREMDA BOARD ASSEMBLY
CN3d
CN3c
CN3e
CN3b
CN3a
CN3f
[4]
BKT(MECHA)
**
9
(S4)
**
8
(S4)
7
(S3b)
SHIELD COVER
(PR)
**
10
(S4)
*
5
(S3a)
*
4
(S3a)
6
(S3b)
[3]
L3

∗0.069N·m (0.7kgf·cm)
∗∗0.078N·m (0.8kgf·cm)

Fig.D3

2.4 ASSEMBLY AND DISASSEMBLY OF [8]VF ASSEMBLY

2.4.1 Disassembly of VF ASSEMBLY

(1) Remove the EYE CUP.
(2) Remove the four screws (1 to 4) and then remove the COVER (VF).
(3) Remove the two screws (5 and 6) and then remove the FPC BOARD from the hook attaching the FPC BOARD.

NOTE 8a:
During the procedure, be careful not to damage the FPC. When attaching the SW BOARD ASSEMBLY, attach the SW BOARD ASSEMBLY so that the SW BOARD ASSEMBLY comes upwards.

(4) Remove the four screws (7 to 10), and then pull out and remove the FPC from the VF HINGE ASSEMBLY.

NOTE 8b:
During the procedure, be careful not to damage the FPC and the SWITCH.

(5) Remove the five screws (11 to 15).
(6) Remove the UPPER CASE(VF) R.
(7) Remove the UPPER CASE(VF) F and then pull out the LENS SA and the LCD UNIT ASSEMBLY with the FPC.

NOTE 8c:
In attaching the LCD UNIT ASSEMBLY, put the projections of the LCD UNIT ASSEMBLY in the slots of the BOTTOM CASE(VF). Put the STOPPER of the FPC inside the BOTTOM CASE(VF). In attaching the UPPER CASE(VF) F and the UPPER CASE(VF) R, attach the UPPER CASE(VF) F first and then the UPPER CASE(VF) R and be careful to keep the FPC inside the BOTTOM CASE(VF).

2.4.2 Disassembly of the LENS SA

(1) Remove the LEVER(LENS).
(2) Remove the SHEET(LENS).
(3) Remove the LENS ASSEMBLY from the GUIDE LENS(VF).

NOTE 8d:
Be careful not to lose the SPRING(LENS).

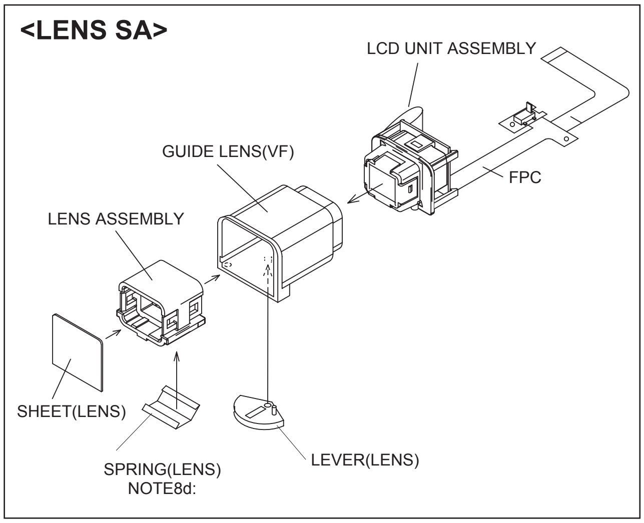

<LENS SA>
LCD UNIT ASSEMBLY
GUIDE LENS(VF)
FPC
LENS ASSEMBLY
SHEET(LENS)
SPRING(LENS)
NOTE8d:
LEVER(LENS)

Fig.2-4-2

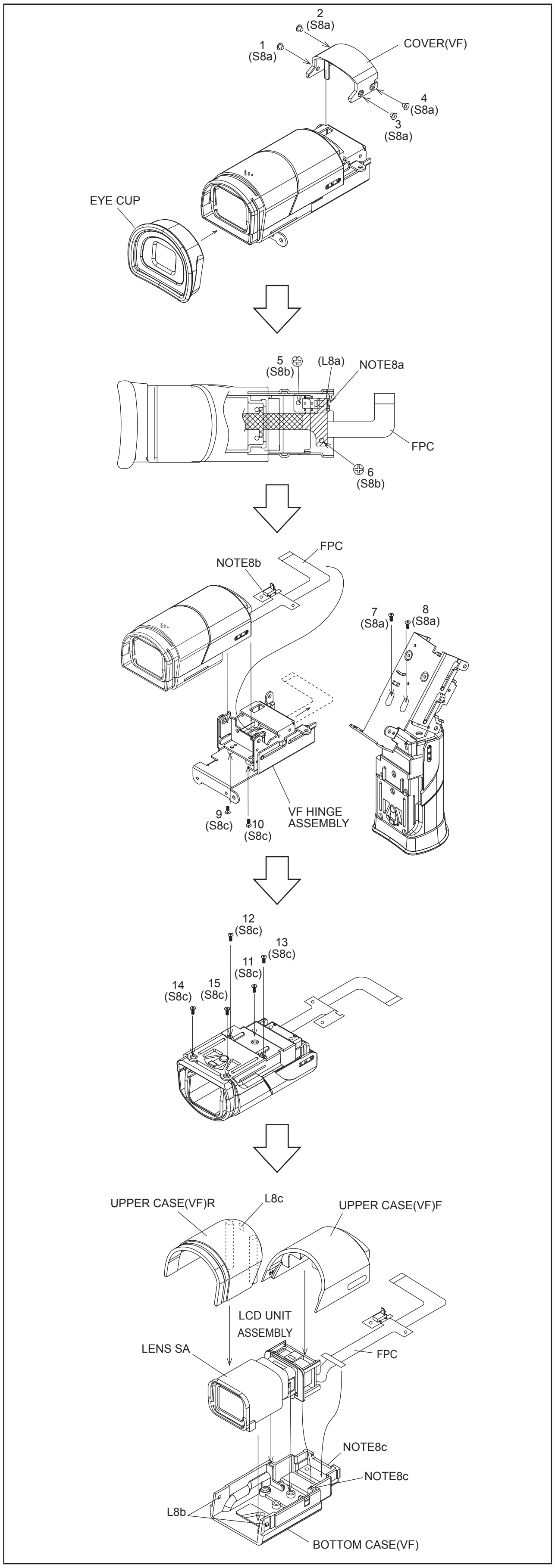

2
(S8a)
1
(S8a)
COVER(VF)
4
(S8a)
3
(S8a)
EYE CUP
5
(S8b)
(L8a)
NOTE8a
FPC
6
(S8b)
FPC
NOTE8b
7
(S8a)
8
(S8a)
9
(S8c)
10
(S8c)
VF HINGE ASSEMBLY
12
(S8c)
13
(S8c)
11
(S8c)
14
(S8c)
15
(S8c)
UPPER CASE(VF)R
L8c
UPPER CASE(VF)F
LCD UNIT ASSEMBLY
LENS SA
FPC
NOTE8c
NOTE8c
L8b
BOTTOM CASE(VF)

Fig.2-4-1

2.5 ASSEMBLY AND DISASSEMBLY OF [10]MONITOR ASSEMBLY (CABINET PARTS)

2.5.1 Disassembly of MONITOR ASSEMBLY (2.5 INCH)

NOTE:

Be careful in removing or handling the monitor assembly, especially not to soil or scratch the monitor screen during the disassembly procedure.

(1) While removing the four screws (1 to 4) in numerical order and then disengaging the four hooks (L10a-L10d) in alphabetical order, open and remove the MONITOR COVER ASSEMBLY.

(2) Remove the SENSOR BOARD ASSEMBLY from the MONITOR CASE.

(3) Disconnect the FPC in the connectors CN10a and CN10b in this order, and then remove the MONI.HINGE ASSEMBLY.

(4) Disconnect the FPC of the LCD MODULE from the connector CN10c.

(5) Remove one screw (5) and then remove the BL BOARD ASSEMBLY together with the BACK LIGHT ASSEMBLY.

NOTE 10a:

It depends on the inch size of the monitor assembly whether the backlight is supplied as an assembly or as separated parts.

In replacing the backlight assembly, see the Parts List.

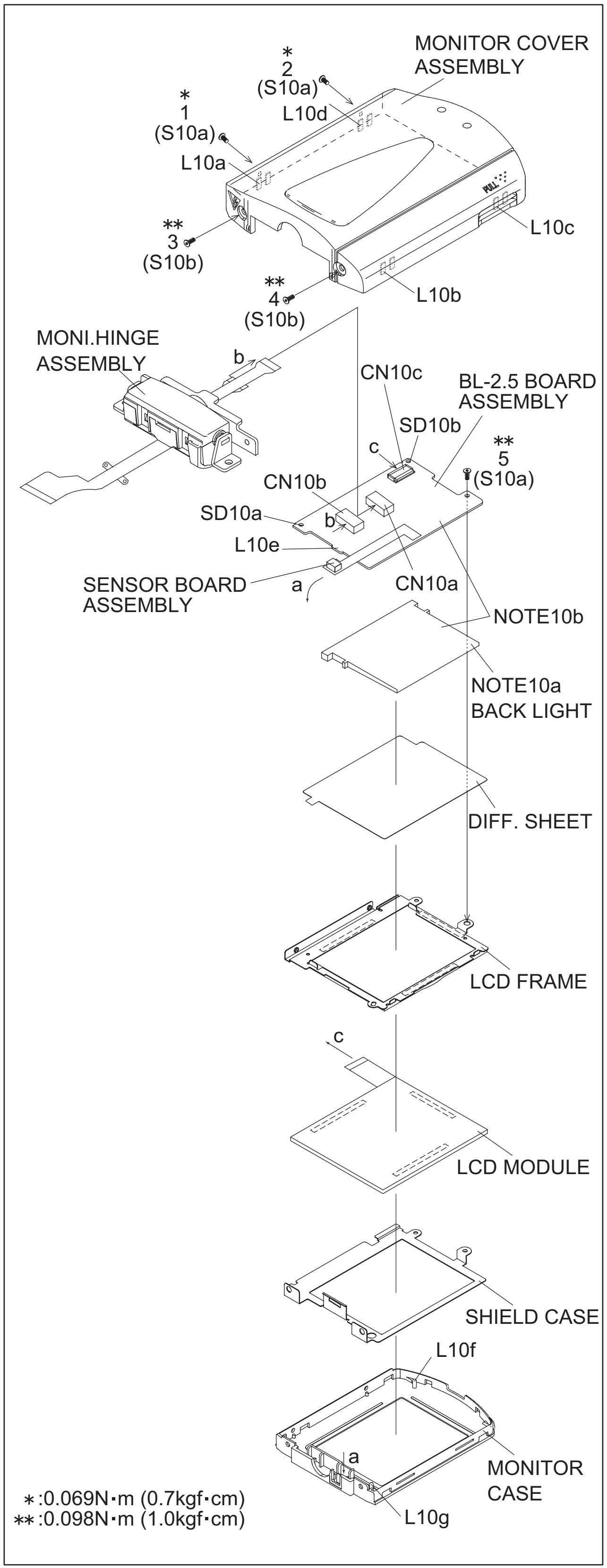
NOTE 10b:

Since the BACK LIGHT ASSEMBLY is soldered to the BL BOARD ASSEMBLY, the BACK LIGHT should not be separated from the BL BOARD ASSEMBLY except when replacing them.

(6) Remove the DIFF.SHEET.

(7) Remove the LCD FRAME together with the LCD MODULE.

(8) Remove the SHIELD CASE.


MONITOR COVER ASSEMBLY
∗ 2 (S10a)
∗ 1 (S10a)
L10d
L10a
L10c
∗∗ 3 (S10b)
∗∗ 4 (S10b)
L10b
MONI.HINGE ASSEMBLY
b
CN10c
BL-2.5 BOARD ASSEMBLY
SD10b
c
∗∗ 5 (S10a)
CN10b
SD10a
b
L10e
SENSOR BOARD ASSEMBLY
a
CN10a
NOTE10b
NOTE10a BACK LIGHT
DIFF. SHEET
LCD FRAME
c
LCD MODULE
SHIELD CASE
L10f
a
MONITOR CASE
L10g

∗:0.069N·m (0.7kgf·cm)
∗∗:0.098N·m (1.0kgf·cm)

Fig.2-5-1

2.6 ASSEMBLY AND DISASSEMBLY OF [2]OP BLOCK ASSEMBLY / CCD BOARD ASSEMBLY (CAMERA SECTION AND BOARD ASSEMBLY)

2.6.1 Precautions

(1) Take care in handling the CCD IMAGE SENSOR, OP LPF and lens components when performing maintenance etc., especially with regard to surface contamination, attached dust or scratching. If fingerprints are present on the surface they should be wiped away using either a silicon paper, clean chamois or the cleaning cloth.

(2) The CCD IMAGE SENSOR may have been shipped with a protective sheet attached to the transmitting glass. When replacing the CCD IMAGE SENSOR, do not peel off this sheet from the new part until immediately before it is mounted in the OP BLOCK ASSEMBLY.

(3) The orientation of the OP LPF is an important factor for installation. If there is some marking on the OP LPF, be sure to note it down before removing and to reassemble it very carefully as it was referring to the marking.

2.6.2 Disassembly of CCD BOARD ASSEMBLY and CCD BASE ASSEMBLY

(1) Unsolder the CCD BOARD ASSEMBLY by the 14 points (SD2) and then remove it.
(2) Remove the two screws (1, 2) and remove the CCD BASE ASSEMBLY.
(3) Remove the SPACER.
(4) Remove the SHEET.
(5) Remove the OP LPF.

2.6.3 Assembly of CCD BASE ASSEMBLY and CCD BOARD ASSEMBLY

(1) Set the OP LPF to the OP BLOCK ASSEMBLY so that the OP side touches the OP BLOCK ASSEMBLY.

NOTE 2a:
Pay careful attention to the orientation of the OP LPF.

(2) Set the SHEET to the OP LPF not to come off the right position.
(3) Attach the SPACER to the OP BLOCK ASSEMBLY.
(4) Fasten them together with the two screws (1, 2).
(5) Set the CCD BOARD ASSEMBLY in the CCD BASE ASSEMBLY, and then solder it by the 14 points (SD2).

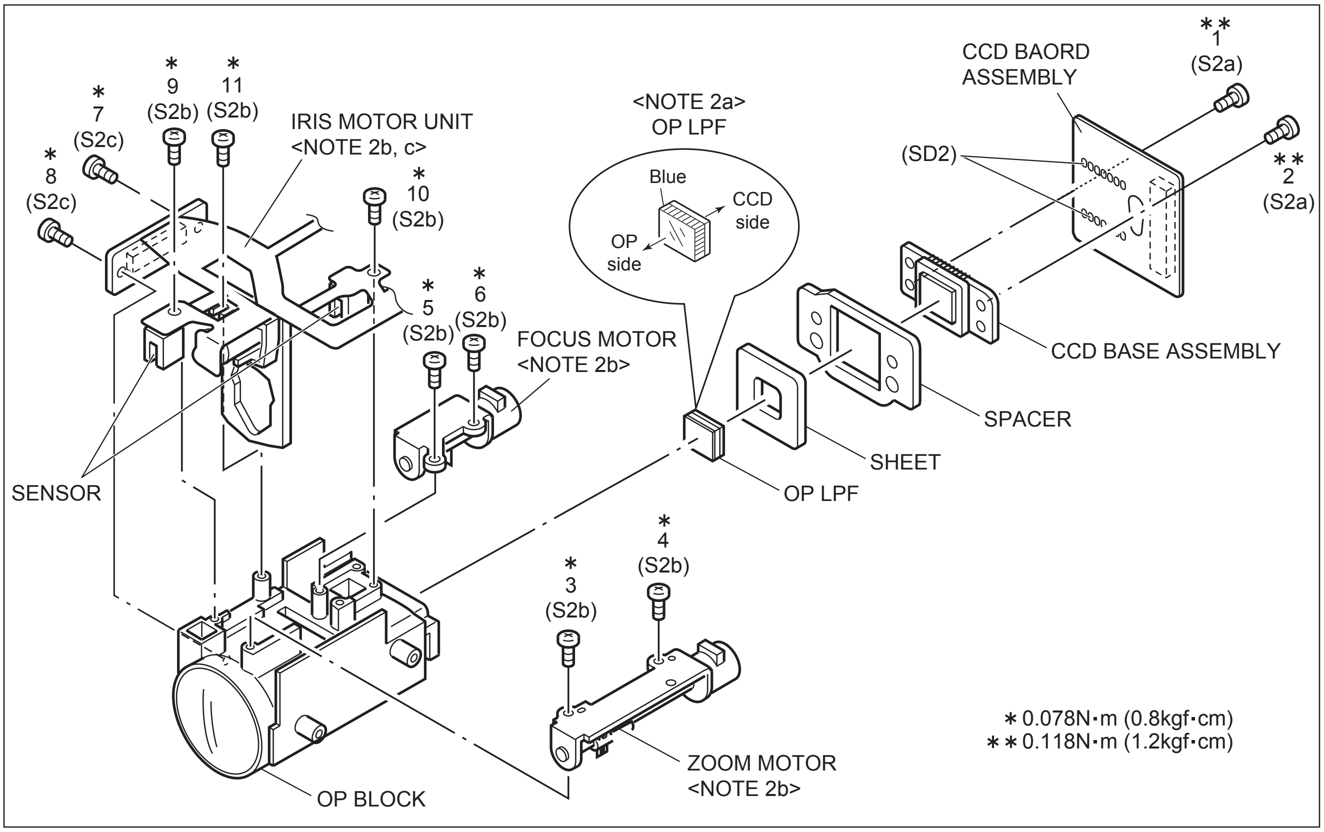
2.6.4 Replacement of service repair parts

The service repair parts for the OP BLOCK ASSEMBLY are as listed below.
Before replacement of these parts, remove the BRACKET (OP BLOCK ASSEMBLY) as required.
Take special care not to disconnect any of the FPC wires or cause any damage due to soldering (excessive heating).

(1) FOCUS MOTOR
(2) ZOOM MOTOR
(3) IRIS MOTOR UNIT

NOTE 2b:
When replacing the FOCUS MOTOR or the ZOOM MOTOR, solder the FPC at a space of about 1 mm above the terminal pin.

NOTE 2c:
The IRIS MOTOR UNIT includes the FPC ASSEMBLY and two sensors.



∗0.078N·m (0.8kgf·cm)
∗∗0.118N·m (1.2kgf·cm)

Fig.2-6-1

2.7 SERVICE NOTE

Use the following chart to manage screws

<CABINET PART>

Symbol No.	[1]	[2] ([8]-[12])										[8]		[9]		[10]				[11] ([12])							
Removing order of screw	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Place to stick screw																		*	*								
Reference drawing (Fig.No.)	C1	C2-1										C2-2		C2-3						C2-4							
Screw tightening torque	I																	Ⅱ		I							

Symbol No.	[3]	[4]	[5]				[6]	[7]			
Removing order of screw	28	29	30	31	32	33	34	35	36	37	38
Place to stick screw											
Reference drawing (Fig.No.)	C3		C4								
Screw tightening torque	I										

<CAMERA AND BOARD ASSEMBLY>

Symbol No.	[1]		[2]	[3]				[4]		
Removing order of screw	1	2	3	4	5	6	7	8	9	10
Place to stick screw										
Reference drawing (Fig.No.)	D1		D2	D3						
Screw tightening torque	I			Ⅲ		I		Ⅳ		

<VF ASSEMBLY>

Symbol No.	[8]														
Removing order of screw	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Place to stick screw					*	*									
Reference drawing (Fig.No.)	2-4-1														
Screw tightening torque	Ⅳ														

<MONITOR ASSEMBLY>

Symbol No.	[10]				
Removing order of screw	1	2	3	4	5
Place to stick screw					
Reference drawing (Fig.No.)	2-5-1				
Screw tightening torque	Ⅲ		Ⅴ		

<OP BLOCK ASSEMBLY>

Symbol No.	[2]/[5]										
Removing order of screw	1	2	3	4	5	6	7	8	9	10	11
Place to stick screw											
Reference drawing (Fig.No.)	2-6-1										
Screw tightening torque	Ⅵ		Ⅳ								

<NOTE>

·* : Don't reuse the screw, because screw lock bond was applied to them.

·Pay careful attention to tightening torque for each screw.

Ⅰ : 0.088N·m (0.9kgf·cm)
Ⅱ : 0.147N·m (1.5kgf·cm)
Ⅲ : 0.069N·m (0.7kgf·cm)
Ⅳ : 0.078N·m (0.8kgf·cm)
Ⅴ : 0.098N·m (1.0kgf·cm)
Ⅵ : 0.118N·m (1.2kgf·cm)

2.8 TAKE OUT CASSETTE TAPE

NOTE :

The following procedure describes a simplified method of ejecting the cassette tape in case it is not possible to eject it, due to an electrical failure.

Be careful not to damage any of the parts or the tape when performing repairs or maintenance work.

(1) Remove the Power Unit (battery, DC code, etc.) from the set.

(2) Open the CASSETTE COVER.

(3) Attach a piece of PVC TAPE at the front of the CASSETTE HOUSING ASSEMBLY.

NOTE:

This helps prevent the tape from being damaged when the CASSETTE HOUSING ASSEMBLY is moved upward at the unloading end.

(4) Apply DC 3V to the electrode on the top surface of the LOADING MOTOR ASSEMBLY to set the MECHANISM ASSEMBLY to the EJECT mode.
Unloading end is EJECT mode.

(5) If there is any slack tape in the tape transport system, wind it inside the DVC CASSETTE TAPE by turning the REEL DISK ASSEMBLY (SUP) from the backside of the SLIDE DECK ASSEMBLY.

(6) Peel off the PVC TAPE and take out the DVC CASSETTE TAPE from the CASSETTE HOUSING ASSEMBLY.

NOTE:

Make sure that grease or a similar substance is not attached to the surface of the tape.

Similarly, also make sure that grease or a similar substance is not attached on the MECHANISM ASSEMBLY.

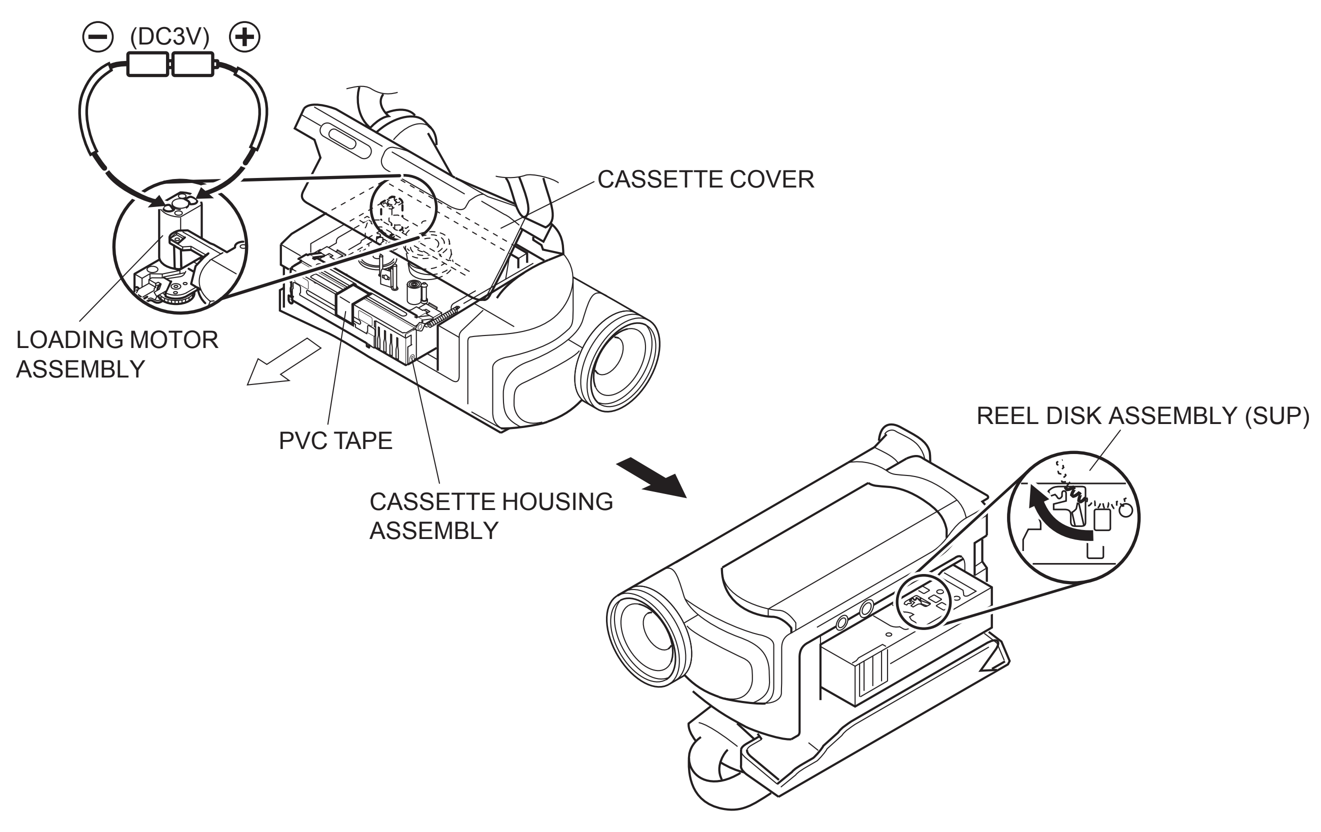


Fig.2-8-1

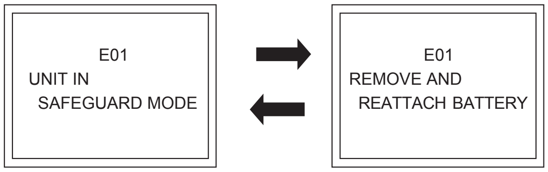
2.9 EMERGENCY DISPLAY

Whenever some abnormal signal is input to the syscon CPU, an error number (E01, as an example) is displayed on the LCD monitor or (in the electronic view finder).

In every error status, such the message as shown below alter nately appear over and over.

- In an emergency mode, all operations except turning on/off the POWER switch are ineffectual.

Example (in case of the error number E01):



LCD display	Emergency mode	Details	Possible cause
E01	LOADING	In the case the encoder position is not shifted to the next point though the loading motor has rotated in the loading direction for 4 seconds or more. This error is defined as [E01].	1. The mechanism is locked during mode shift. 2. The mechanism is locked at the mechanism loading end, because the encoder position is skipped during mechanism mode shift. 3. No power is supplied to the loading MDA.
E02	UNLOADING	In the case the encoder position is not shifted to the next point though the loading motor has rotated in the unloading direction for 4 seconds or more. This error is defined as [E02].	1. The mechanism is locked during mode shift. 2. The mechanism is locked at the mechanism loading end, because the encoder position is skipped during mechanism mode shift.
E03	TU & SUP REEL FG	In the case no REEL FG is produced for 4 seconds or more in the capstan rotation mode after loading was complete, the mechanism mode is shifted to STOP with the pinch roller set off. This error is defined as [E03]. However, no REEL EMG is detected in the SLW/STILL mode.	1. The idler gear does not engage with the reel disk well. 2. Though the idler gear and reel disk are engaged with each other, the tape is not wound because of overload to the mechanism. 3. No FG pulse is output from the reel sensor. 4. No power is supplied to the reel sensor. 5. Tape transport operation takes place with a cassette having no tape inside. 6. The tape slackens and no pulse is produced until the slack is taken up and the tape comes into the normal status.
E04	DRUM FG	In the case there is no DRUM FG input in the drum rotation mode for 4 seconds or more. This error is defined as [E04], and the mechanism mode is shifted to STOP with the pinch roller set off.	1. The drum cannot be started or drum rotation is stopped because tape transport load is too high. 1) Tape tension is extremely high. 2) The tape is damaged or soiled with grease, etc. 2. The DRUM FG signal is not received by the syscon CPU. 1) Disconnection in the middle of the signal line. 2) Failure of the DRUM FG pulse generator (hall element). 3. No drum control voltage is supplied to the MDA. 4. No power is supplied to the DRUM MDA.
E05	-	-	-
E06	CAPSTAN FG	In the case no CAPSTAN FG is produced in the capstan rotation mode for 2 seconds or more. This error is defined as [E06], and the mechanism mode is shifted to STOP with the pinch roller set off. However, no CAPSTAN EMG is detected in the STILL/FF/REW mode.	1. The CAPSTAN FG signal is not received by the syscon CPU. 1) Disconnection in the middle of the signal line. 2) Failure of the CAPSTAN FG pulse generator (MR element). 2. No capstan control voltage is supplied to the MDA. 4. The capstan cannot be started or capstan rotation is stopped because tape transport load is too high. 1) Tape tension is extremely high. (Mechanical locking) 2) The tape is damaged or soiled with grease, etc. (Tape tangling occurs, etc.)

Fig.2-9-1

SECTION 3
ADJUSTMENT

3.1 PREPARATION

(1) Precaution

This model does not contain adjustment controls (VR). General deck system, camera system and monitor system adjustment are not required. However, if MAIN board need replacement, please use original EEP ROM on to new board. Then adjustment are not required. And if parts such as the following need replacement, special computerized adjustment are required. 3.5.1 Electrical adjustment with personal computer is setup and it adjusts using a service support system. Please contact to JVC Service for detail information.

- OP BLOCK ASSEMBLY
- EEP ROM (IC1005 of MAIN board)
- MONITOR / VF ASSEMBLY

In the event of malfunction with electrical circuits, troubleshooting with the aid of proper test instruments most be done first, and then commence necessary repair, replacement and adjustment, etc.

a) In case of wiring to chip test points for measurement, use IC clips, etc. to avoid any stress.
b) Since connectors are fragile, carefully handle them in disconnecting and connecting.
c) Short circuit between operation unit and DECK chassis.

(2) Required test equipment

a) Color TV monitor.
b) AC power adapter
c) Oscilloscope (dual-trace type, observable 100 MHz or higher frequency)
  - It is recommended to use one observable 300 MHz or higher frequency.
d) Digital voltmeter
e) Frequency counter (with threshold level adjuster)
f) Personal computer

3.2 TOOLS REQUIRED FOR ADJUSTMENT

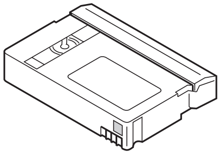
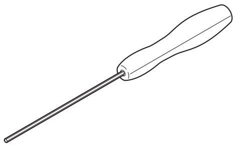
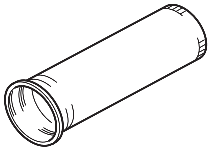
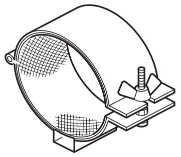
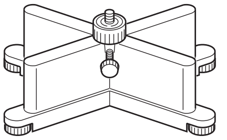
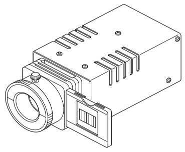
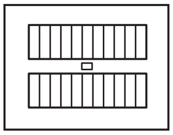
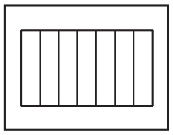
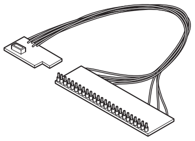
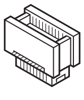
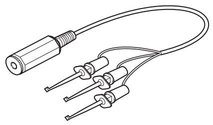
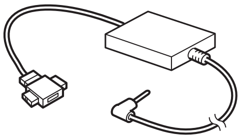
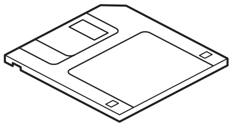
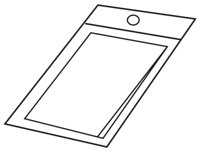
1 Alignment tape MC-2	2 Guide driver (Hexagonal) D-770-1.27
	
3 INF adjustment lens YTU92001B	4 INF lens holder YTU94087
	
5 Camera stand YTU93079	6 Light box assembly YTU93096A
	
7 Gray scale chart YTU94133A	8 Color bar chart YTU94133C
	
9 Jig connector cable YTU93106B	10 Extension connector YTU94145C-30
	
11 Communication cable YTU93107A	12 PC cable QAM0099-005
	
13 Service support system YTU94057-67	14 Cleaning cloth KSMM-01
	

Fig.3-2-1

1. Alignment tape

To be used for check and adjustment of interchangeability of the mechanism.

2. Guide driver (Hexagonal)

To be used to turn the guide roller to adjustment of the linarity of playback envelope.

3.INF adjustment lens

To be used for adjustment of the camera system. For the usage of the INF adjustment lens, refer to the Service Bulletin No. YA-SB-10035.

4.INF lens holder

To be used together with the Camera stand (6) for operating the Videocamera in the stripped-down condition such as the status without the exterior parts or for using commodities that are not yet conformable to the interchangeable ring. For the usage of the INF lens holder, refer to the Service Bulletin No. YA-SB-10035.

5.Camera stand

To be used together with the INF adjustment lens holder. For the usage of the Camera stand, refer to the Service Bulletin No. YA-SB-10035.

6.Light box assembly

To be used for adjustment of the camera system. For the usage of the Light box assembly, refer to the Service Bulletin No. YA-SB-10035.

7.Gray scale chart

To be used for adjustment of the camera system. For the usage of the INF adjustment lens, refer to the Service Bulletin No. YA-SB-10035.

8.Color bar chart

To be used for adjustment of the camera system. For the usage of the INF adjustment lens, refer to the Service Bulletin No. YA-SB-10035.

9. Jig connector cable

Connected to CN105 of the main board and used for electrical adjustment, etc.

NOTE:

Only some of the connectors in the JIG connector (YTU93106B) are soldered to wires.

It is desirable that you solder all the connectors to wires before using the JIG connector (YTU93106B), but you should solder only the connectors shown in the following JIG connector schematic diagram to wires because they are used in this model.

As for the details, see 3.3 JIG CONNECTOR CABLE.

10.Extension connector

Connect this extension connector to the connector of the jig connector cable for extending the cable connector.

NOTE:

removing the cover (for jig), use this extension connector triple for connecting the jig connector cable.

11.Communication Cable

Connect the Communication cable between the PC cable and Jig connector cable when performing a PC adjustment.

12.PC cable

To be used to connect the Videocamera and a personal computer with each other when a personal computer issued for adjustment.

13.Service support system

To be used for adjustment with a personal computer. Software can be downloaded also from JS-net.

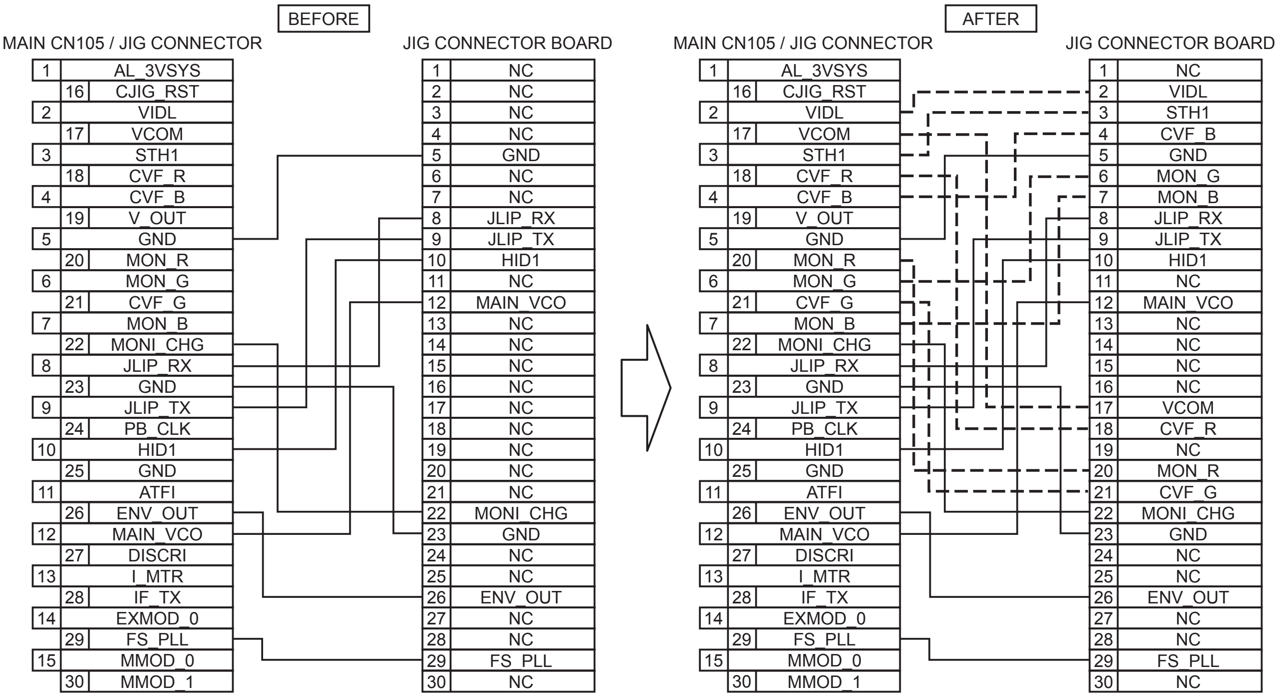
14.Cleaning cloth

Recommended the Cleaning cloth to wipe down the video heads, mechanism (tape transport system), optical lens surface.

3.3 JIG CONNECTOR CABLE

Nine wires have been soldered to the JIG CONNECTOR CABLE (YTU93106B).
Solder another nine wires to the JIG CONNECTOR CABLE (YTU93106B) to use in this set.
See the JIG CONNECTOR SCHEMATIC DIAGRAM and JIG CONNECTOR BOARD to solder the nine wires.

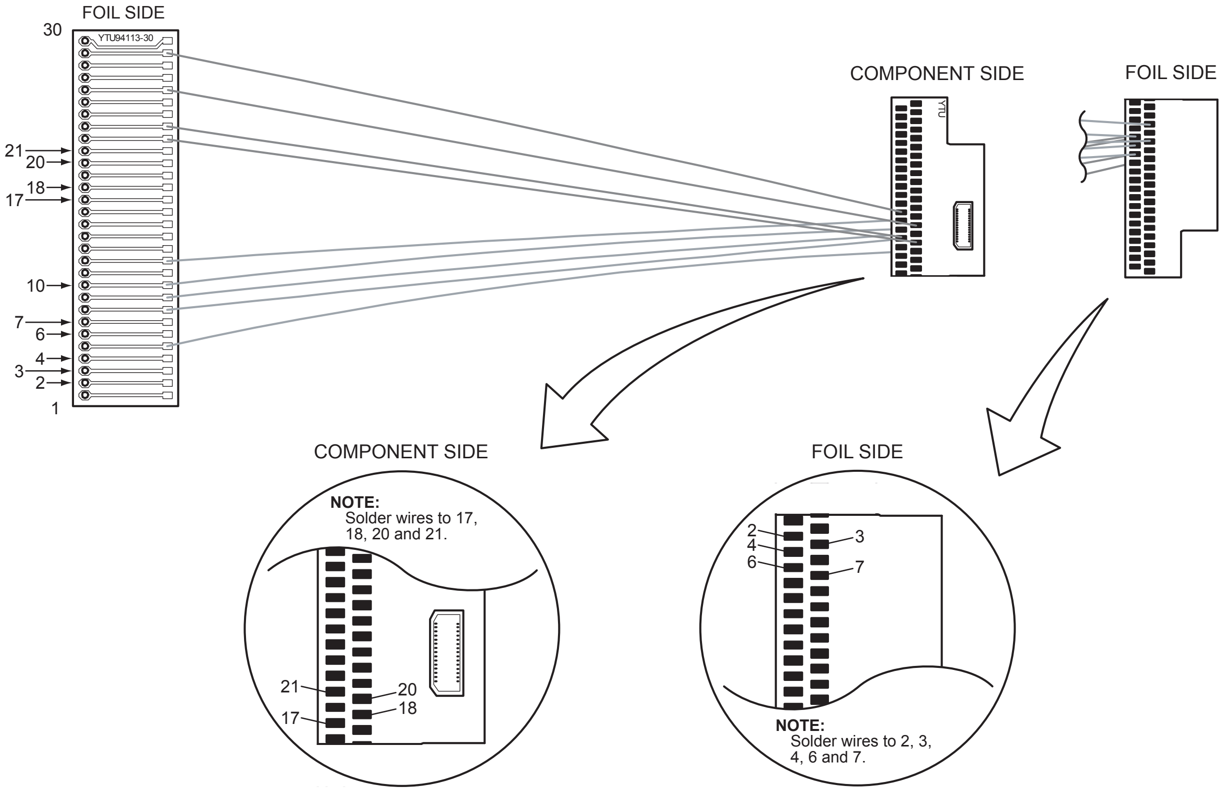
3.3.1 JIG CONNECTOR SCHEMATIC DIAGRAM


BEFORE
AFTER
MAIN CN105 / JIG CONNECTOR
JIG CONNECTOR BOARD
1 AL_3VSYS
16 CJIG_RST
2 VIDL
17 VCOM
3 STH1
18 CVF_R
4 CVF_B
19 V_OUT
5 GND
20 MON_R
6 MON_G
21 CVF_G
7 MON_B
22 MONI_CHG
8 JLIP_RX
23 GND
9 JLIP_TX
24 PB_CLK
10 HID1
25 GND
11 ATFI
26 ENV_OUT
12 MAIN_VCO
27 DISCRI
13 I_MTR
28 IF_TX
14 EXMOD_0
29 FS_PLL
15 MMOD_0
30 MMOD_1
1 NC
2 NC
3 NC
4 NC
5 GND
6 NC
7 NC
8 JLIP_RX
9 JLIP_TX
10 HID1
11 NC
12 MAIN_VCO
13 NC
14 NC
15 NC
16 NC
17 NC
18 NC
19 NC
20 NC
21 NC
22 MONI_CHG
23 GND
24 NC
25 NC
26 ENV_OUT
27 NC
28 NC
29 FS_PLL
30 NC
1 NC
2 VIDL
3 STH1
4 CVF_B
5 GND
6 MON_G
7 MON_B
8 JLIP_RX
9 JLIP_TX
10 HID1
11 NC
12 MAIN_VCO
13 NC
14 NC
15 NC
16 NC
17 VCOM
18 CVF_R
19 NC
20 MON_R
21 CVF_G
22 MONI_CHG
23 GND
24 NC
25 NC
26 ENV_OUT
27 NC
28 NC
29 FS_PLL
30 NC

NOTE:
The wires shown as ——— are already soldered.
Solder the wires shown as – – – .

Fig.3-3-1

3.3.2 JIG CONNECTOR BOARD


FOIL SIDE
30
YTU94113-30
21
20
18
17
10
7
6
4
3
2
1
COMPONENT SIDE
FOIL SIDE
COMPONENT SIDE
FOIL SIDE
21
20
18
17
2
4
6
3
7

NOTE:
Solder wires to 17, 18, 20 and 21.

NOTE:
Solder wires to 2, 3, 4, 6 and 7.

Fig.3-3-2

3.4 MECHANISM COMPATIBILITY ADJUSTMENT

3.4.1 Tape pattern check

(1) Connect the JIG CONNECTOR CABLE to the set.
As for the connection procedure, JIG CONNECTOR BOARD and see 3.5 ELECTRICAL ADJUSTMENT.
(2) Remove the COVER(ADJUST)
(3) Play back the compatibility adjustment tape.
(4) While triggering the HID1, observe the waveform of ENV_OUT.
(5) Confirm that the waveform is free from remarkable level-down, and entirely parallel and straight.
(6) In case any level-down is observed on the left hand side, straighten the level by turning the GUIDE ROLLER (SUP) of the POLE BASE ASSEMBLY.
In case any level-down is observed on the right hand side, however, straighten the level by turning the GUIDE ROLLER(TU) of the POLE BASE ASSEMBLY.
(7) After adjustment, try the unloading motion once, and confirm that the waveform is flat (straight) when the tape has been played back again.
Moreover, perform readjustment as required.
(8) When the recording has been played back again, play back the self-recording to confirm that the waveform is flat.

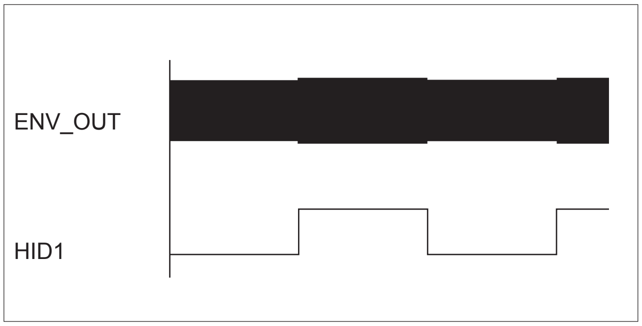


Fig.3-4-1

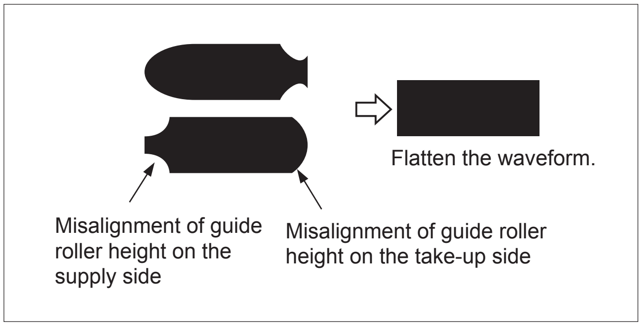

Flatten the waveform.
Misalignment of guide roller height on the supply side
Misalignment of guide roller height on the take-up side

Fig.3-4-2

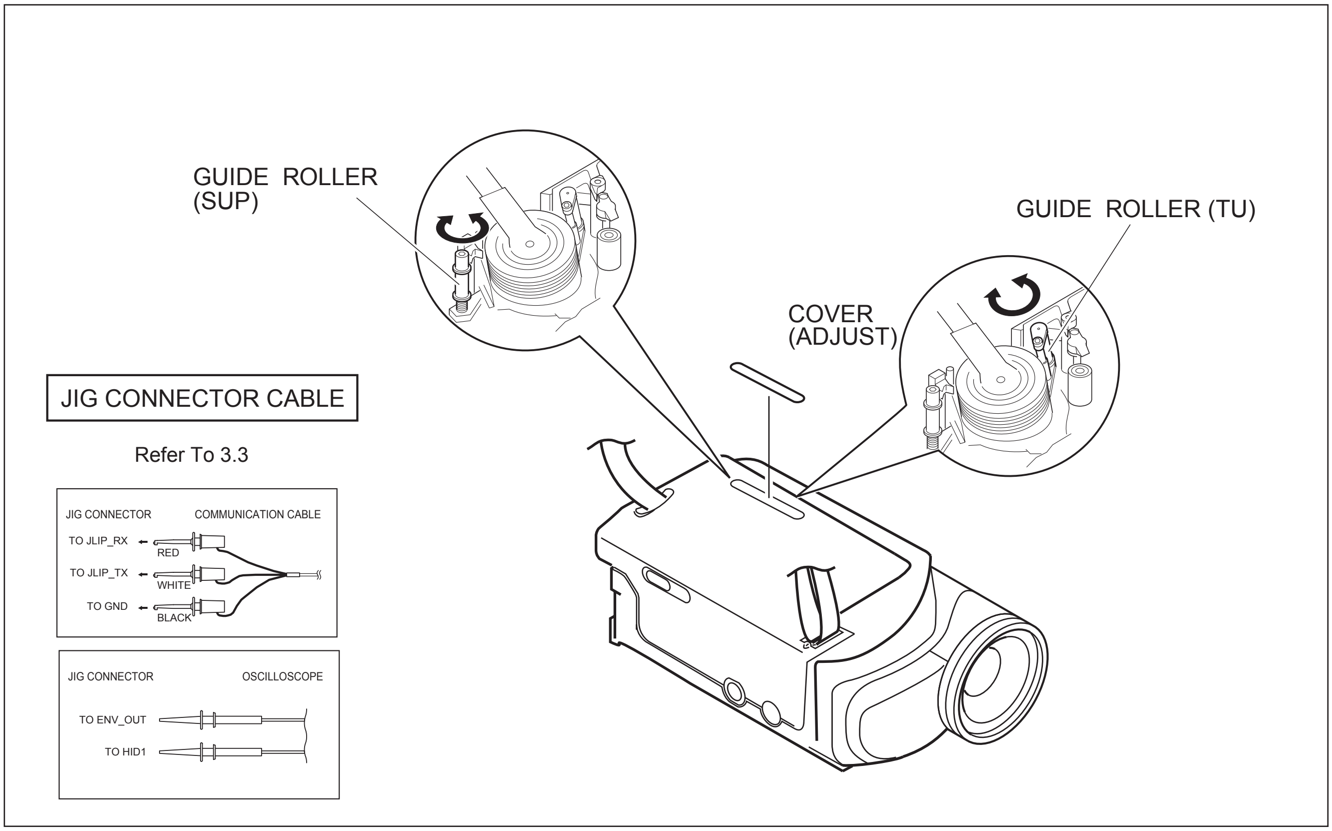
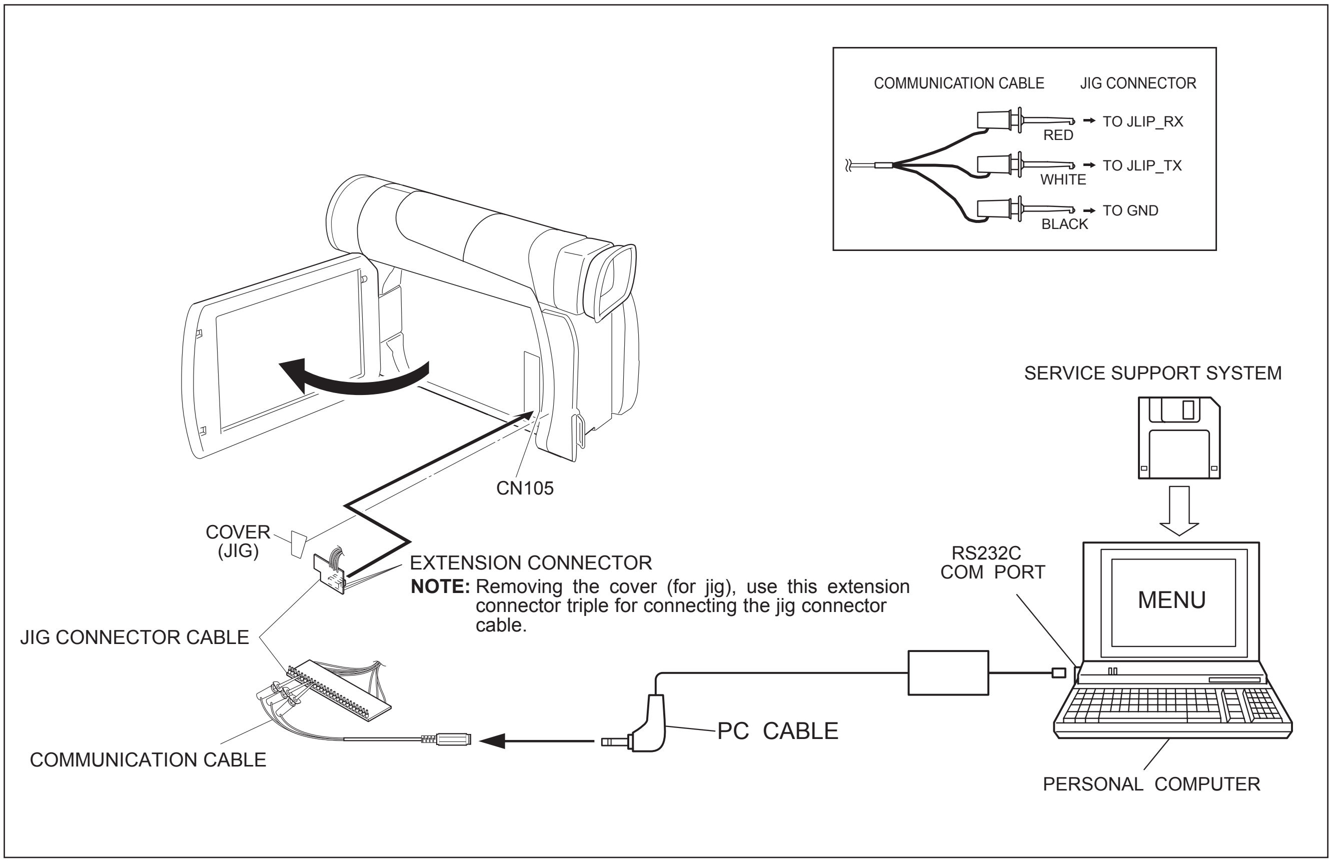

GUIDE ROLLER (SUP)
GUIDE ROLLER (TU)
COVER (ADJUST)
JIG CONNECTOR CABLE
Refer To 3.3
JIG CONNECTOR
COMMUNICATION CABLE
TO JLIP_RX
RED
TO JLIP_TX
WHITE
TO GND
BLACK
JIG CONNECTOR
OSCILLOSCOPE
TO ENV_OUT
TO HID1

Fig.3-4-3

3.5 ELECTRICAL ADJUSTMENT

3.5.1 Electrical adjustment with personal computer

- Electrical adjustmentis performed by using PERSONAL COMPUTER. As for the connection of cables, see Fig. 3-5-1. Read README.TXT file to use the software for SERVICE SUPPORT SYSTEM properly.
- Remove the COVER (JIG) to perform adjustment.


COMMUNICATION CABLE
JIG CONNECTOR
RED
TO JLIP_RX
WHITE
TO JLIP_TX
BLACK
TO GND
SERVICE SUPPORT SYSTEM
CN105
COVER (JIG)
EXTENSION CONNECTOR
RS232C COM PORT
MENU
JIG CONNECTOR CABLE
PC CABLE
COMMUNICATION CABLE
PERSONAL COMPUTER

NOTE: Removing the cover (for jig), use this extension connector triple for connecting the jig connector cable.

Fig.3-5-1

VICTOR COMPANY OF JAPAN, LIMITED
AV & MULTIMEDIA COMPANY CAMCORDER CATEGORY 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama, kanagawa-prefecture, 221-8528, Japan

Printed in Japan
200304WPC

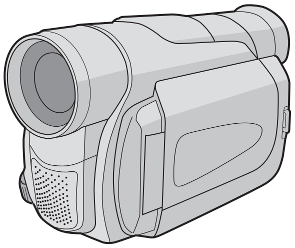
JVC

SCHEMATIC DIAGRAMS

DIGITAL VIDEO CAMERA

GR-D20EK,GR-D20EX,GR-D20EY,GR-D20EZ,GR-D21EK, GR-D40EK,GR-D40EX,GR-D40EY,GR-D40EZ

CD-ROM No.SML200305



Mini DV PAL

For disassembling and assembling of MECHANISM ASSEMBLY, refer to the SERVICE MANUAL No.86700 (MECHANISM ASSEMBLY).

SPECIFICATION

Camcorder

General

Power supply : DC 11.0 V ⎓ (Using AC Adapter)
DC 7.2 V ⎓ (Using battery pack)
Power consumption
LCD monitor off, viewfinder on : Approx. 3.4 W
LCD monitor on, viewfinder off : Approx. 4.7 W
Dimensions (W x H x D) : 69 mm x 94 mm x 143 mm (with the LCD monitor closed and the viewfinder pushed back in)
Weight : Approx. 525 g
Operating temperature : 0°C to 40°C
Operating humidity : 35% to 80%
Storage temperature : -20°C to 50°C
Pickup : 1/6" CCD
Lens : F 1.6, f = 2.7 mm to 43.2 mm, 16:1 power zoom lens
Filter diameter : Ø37 mm
LCD monitor : 2.5" diagonally measured, LCD panel/TFT active matrix system
Viewfinder : Electronic viewfinder with 0.24" black/white LCD
Speaker : Monaural

Digital Video Camera

Format : DV format (SD mode)
Signal format : PAL standard
Recording/Playback format : Video: Digital component recording
: Audio: PCM digital recording,
32 kHz 4-channel (12-bit),
48 kHz 2-channel (16-bit)
Cassette : Mini DV cassette
Tape speed : SP : 18.8 mm/s
LP : 12.5 mm/s
Maximum recording time (using 80 min. cassette) : SP : 80 min.
LP : 120 min.

Connectors

S-Video
Output : Y : 1 V (p-p), 75 Ω, analogue
C : 0.29 V (p-p), 75 Ω, analogue
Input* : Y : 0.8 V (p-p) -1.2 V (p-p), 75 Ω, analogue
C : 0.2 V (p-p) -0.4 V (p-p), 75 Ω, analogue

AV
Video output : 1 V (p-p), 75 Ω, analogue
Video input* : 0.8 V (p-p) -1.2 V (p-p), 75 Ω, analogue
Audio output : 300 mV (rms), 1 kΩ, analogue, stereo
Audio input* : 300 mV (rms), 50 kΩ, analogue, stereo

DV
Output : 4-pin, IEEE 1394 compliant
Input* : 4-pin, IEEE 1394 compliant
USB** : 5-pin
EDIT Ø3.5 mm, 2-pole

* GR-D50/D30 only
** GR-D50/D40 only

AC Adapter

Power requirement AC 110 V to 240 V ~, 50 Hz/60 Hz
Output : DC 11 V ⎓, 1 A

Specifications shown are for SP mode unless otherwise indicated. E & O.E. Design and specifications subject to change without notice.

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No.86730SCH
2003/04

CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions
The Components identified by the symbol ⚠ are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

Unless otherwise specified.

1) All resistance values are in ohm. 1/6 W, 1/8 W (refer to parts list).
   Chip resistors are 1/16 W.
   K: KΩ (1000Ω), M: MΩ (1000KΩ)
2) All capacitance values are in µF, (P: PF).
3) All inductance values are in µH, (m: mH).
4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

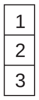
Note: The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only. When replacing the parts, refer to the Parts List.

2. Indications of control voltage

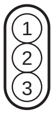
AUX : Active at high.

$\overline{\text{AUX}}$ or AUX(L) : Active at low.

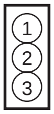
3. Interpreting Connector indications



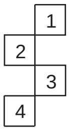
Removable connector



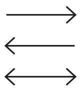
Wire soldered directly on board



Non-removable Board connector



Board to Board

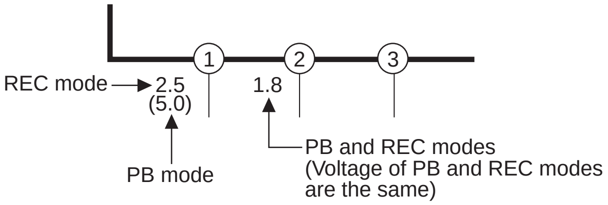


Connected pattern on board
The arrows indicate signal path

Note: For the destination of each signal and further line connections that are cut off from the diagram, refer to "BOARD INTERCONNECTIONS"

4. Voltage measurement

1) Regulator (DC/DC CONV) circuits
   REC : Colour bar signal.
   PB : Alignment tape (Colour bar).
   — : Unmeasurable or unnecessary to measure.
4) Indication on schematic diagram
   Voltage Indications for REC and PB mode on the schematic diagram are as shown below.

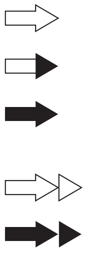


Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

5. Signal path Symbols

The arrows indicate the signal path as follows.

NOTE : The arrow is DVC unique object.



Playback signal path

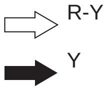
Playback and recording signal path

Recording signal path
(including E-E signal path)

Capstan servo path

Drum servo path

(Example)

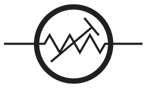


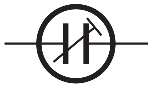
Playback R-Y signal path

Recording Y signal path

6. Indication of the parts for adjustments

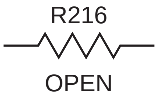
The parts for the adjustments are surrounded with the circle as shown below.





7. Indication of the parts not mounted on the circuit board

"OPEN" is indicated by the parts not mounted on the circuit board.



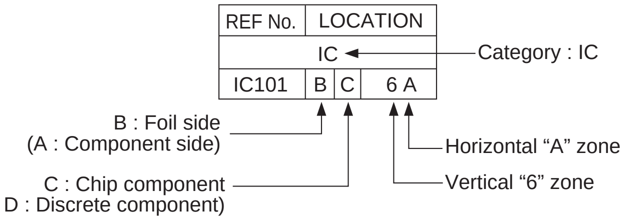
CIRCUIT BOARD NOTES

1. Foil and Component sides

1) Foil side (B side) :
   Parts on the foil side seen from foil face (pattern face) are indicated.
2) Component side (A side) :
   Parts on the component side seen from component face (parts face) indicated.

2. Parts location guides

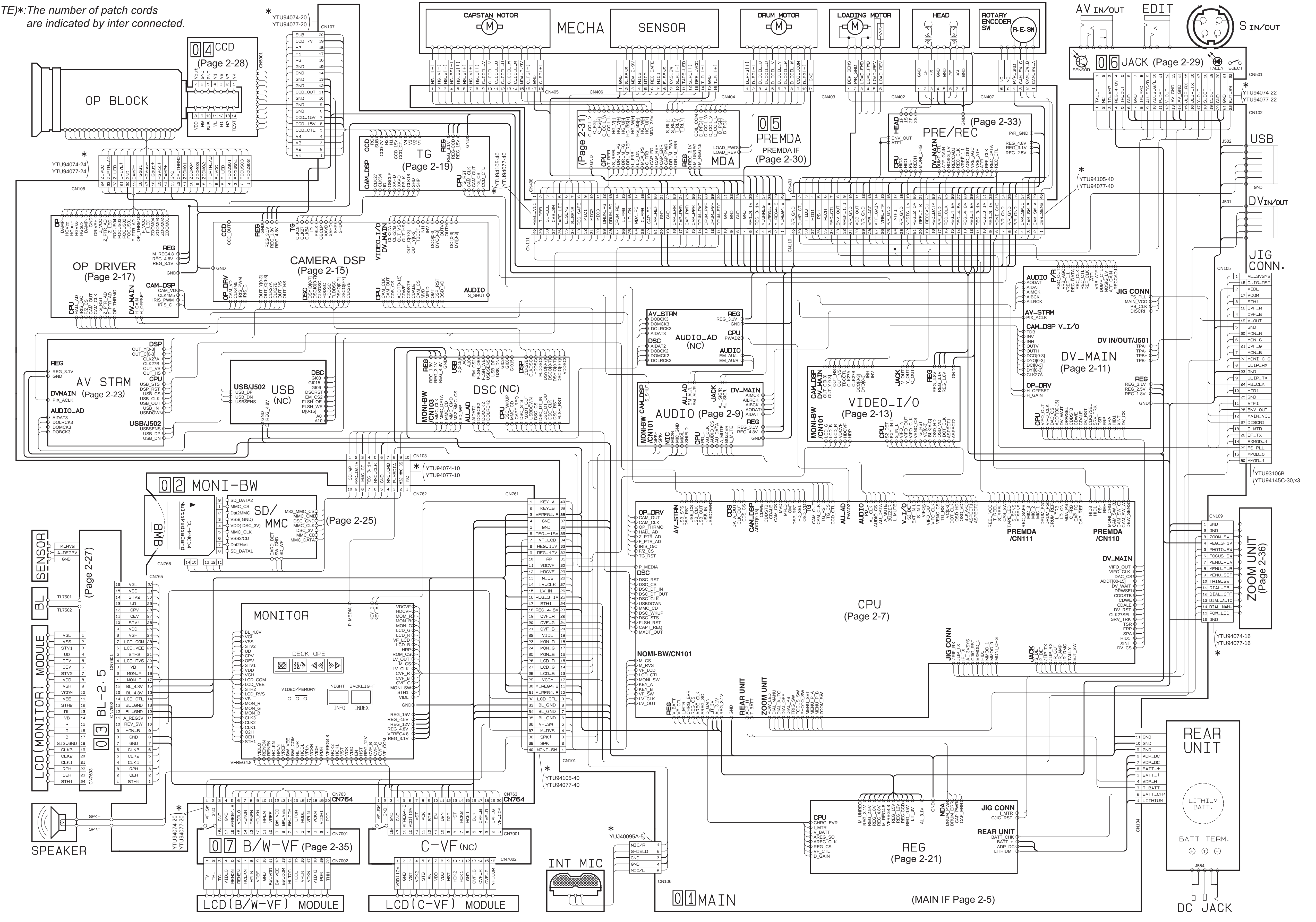
Parts location are indicated by guide scale on the circuit board.


REF No.
LOCATION
IC
Category : IC
IC101
B
C
6 A
B : Foil side
(A : Component side)
C : Chip component
D : Discrete component)
Horizontal “A” zone
Vertical “6” zone

Note: For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

■ BOARD INTERCONNECTIONS

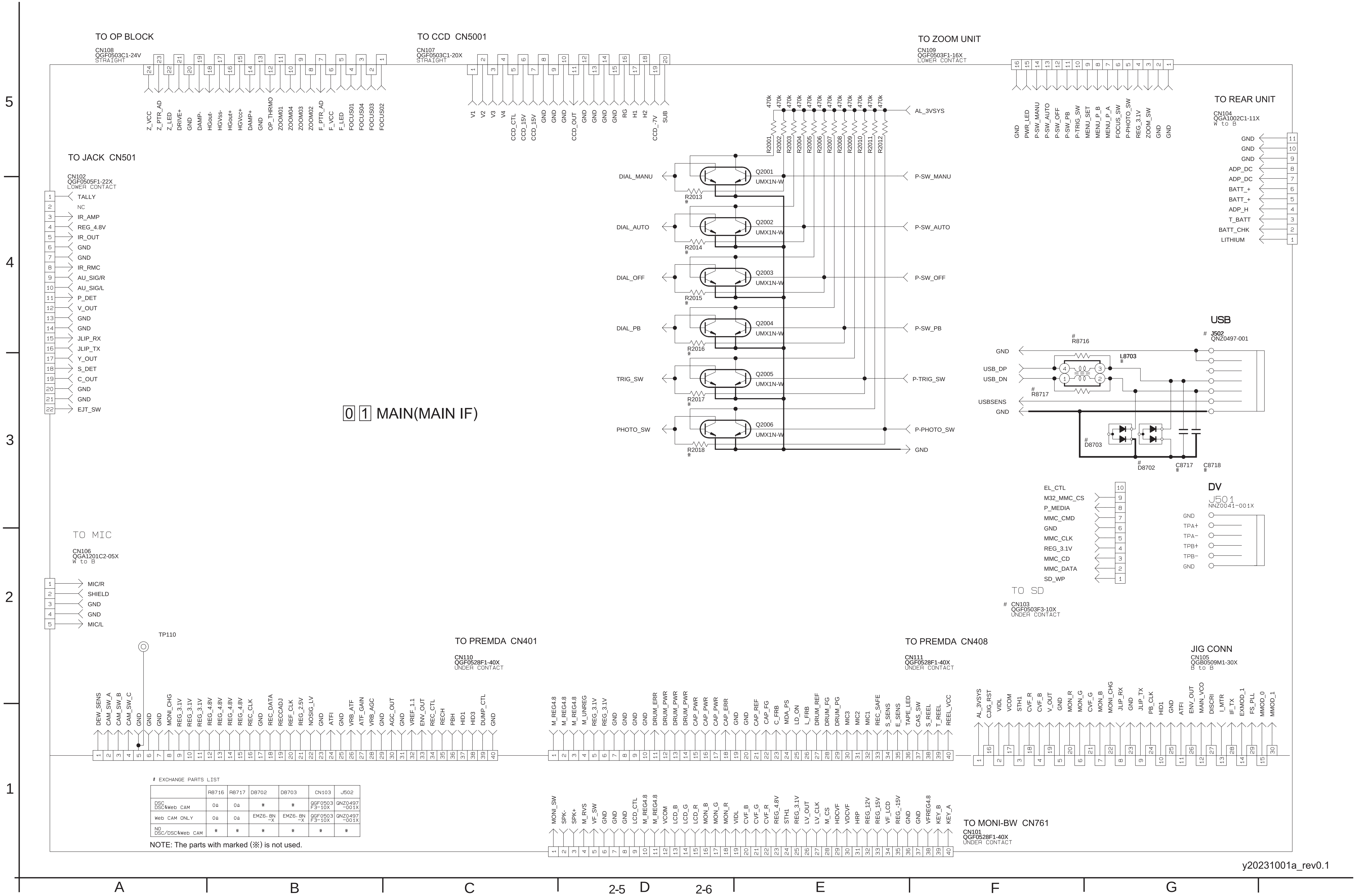
NOTE):The number of patch cords are indicated by inter connected.*



OP BLOCK
04 CCD (Page 2-28)
MECHA
CAPSTAN MOTOR
SENSOR
DRUM MOTOR
LOADING MOTOR
HEAD
ROTARY ENCODER SW
AV IN/OUT
EDIT
S IN/OUT
06 JACK (Page 2-29)
SENSOR
TALLY
EJECT
USB
DV IN/OUT
JIG CONN.
TG (Page 2-19)
05 PREMDA
PREMDA IF (Page 2-30)
MDA
PRE/REC (Page 2-33)
OP_DRIVER (Page 2-17)
CAMERA_DSP (Page 2-15)
AV STRM (Page 2-23)
USB (NC)
DSC (NC)
AUDIO_AD (NC)
AUDIO (Page 2-9)
VIDEO_I/O (Page 2-13)
DV_MAIN (Page 2-11)
02 MONI-BW
SD/MMC (Page 2-25)
SENSOR
BL
(Page 2-27)
LCD(MONITOR) MODULE
03 BL-2.5
MONITOR
DECK OPE
VIDEO/MEMORY
NIGHT
BACKLIGHT
INFO
INDEX
CPU (Page 2-7)
ZOOM UNIT (Page 2-36)
REAR UNIT
LITHIUM BATT.
BATT_TERM.
DC JACK
REG (Page 2-21)
SPEAKER
07 B/W-VF (Page 2-35)
C-VF (NC)
LCD(B/W-VF) MODULE
LCD(C-VF) MODULE
INT MIC
01 MAIN
(MAIN IF Page 2-5)
YTU94074-20
YTU94077-20
YTU94074-24
YTU94077-24
YTU94105-40
YTU94077-40
YTU94074-22
YTU94077-22
YTU94074-10
YTU94077-10
YTU93106B
YTU94145C-30,x3
YTU94074-16
YTU94077-16
YUJ40095A-5

y10331001a_rev0.1

■ MAIN IF SCHEMATIC DIAGRAM



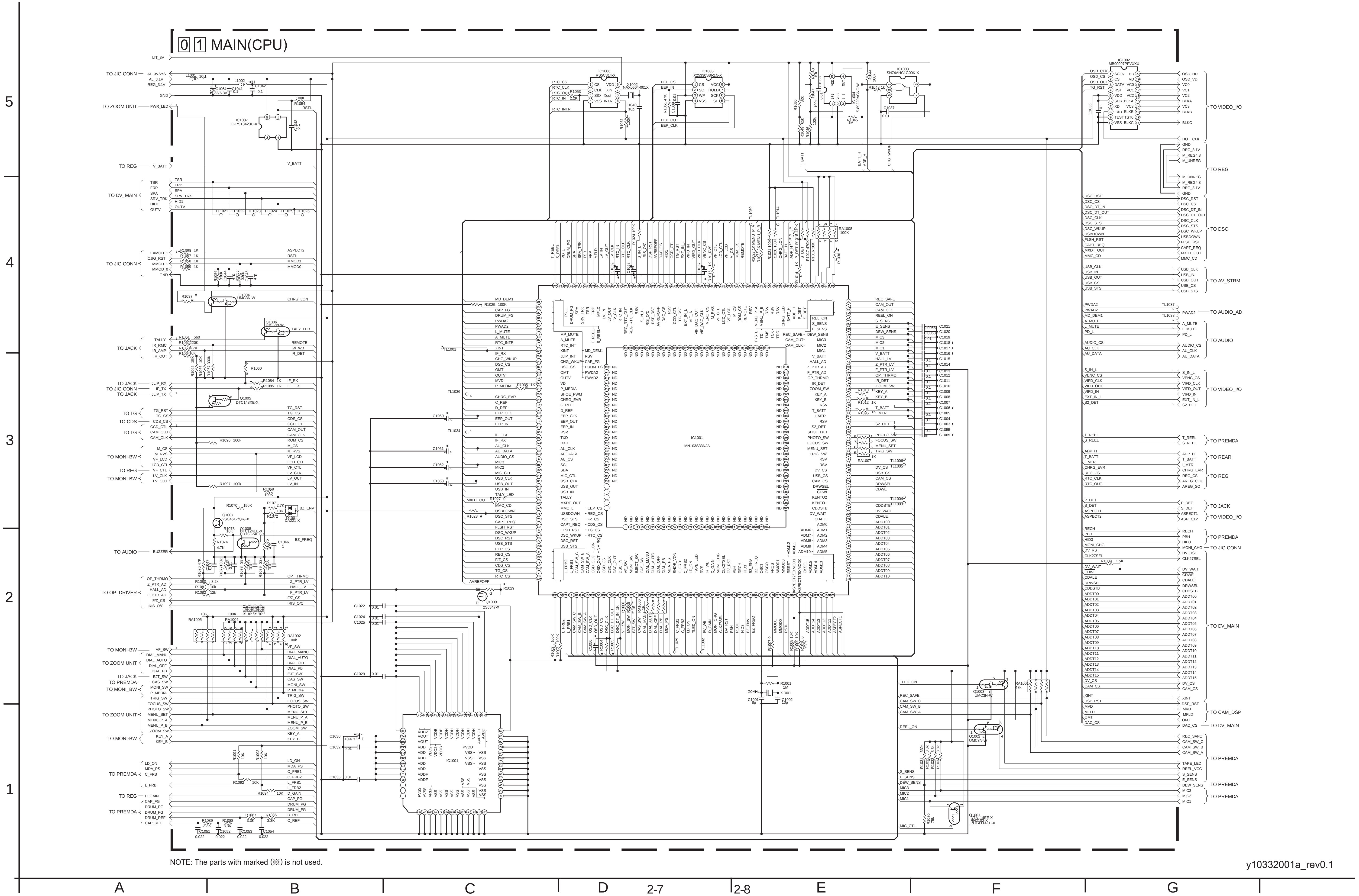
TO OP BLOCK
CN108
QGF0503C1-24V
STRAIGHT
Z_VCC
Z_PTR_AD
Z_LED
DRIVE+
GND
DAMP-
HGout-
HGVss-
HGout+
HGVcc+
DAMP+
GND
OP_THRMO
ZOOM01
ZOOM04
ZOOM03
ZOOM02
F_PTR_AD
F_VCC
F_LED
FOCUS01
FOCUS04
FOCUS03
FOCUS02
TO CCD CN5001
CN107
QGF0503C1-20X
STRAIGHT
V1
V2
V3
V4
CCD_CTL
CCD_15V
CCD_15V
GND
GND
GND
CCD_OUT
GND
GND
GND
GND
RG
H1
H2
CCD_-7V
SUB
TO ZOOM UNIT
CN109
QGF0503F1-16X
LOWER CONTACT
GND
PWR_LED
P-SW_MANU
P-SW_AUTO
P-SW_OFF
P-SW_PB
P-TRIG_SW
MENU_SET
MENU_P_B
MENU_P_A
FOCUS_SW
P-PHOTO_SW
REG_3.1V
ZOOM_SW
GND
GND
AL_3VSYS
470k
R2001
R2002
R2003
R2004
R2005
R2006
R2007
R2008
R2009
R2010
R2011
R2012
DIAL_MANU
DIAL_AUTO
DIAL_OFF
DIAL_PB
TRIG_SW
PHOTO_SW
Q2001
Q2002
Q2003
Q2004
Q2005
Q2006
UMX1N-W
R2013
R2014
R2015
R2016
R2017
R2018
P-SW_MANU
P-SW_AUTO
P-SW_OFF
P-SW_PB
P-TRIG_SW
P-PHOTO_SW
GND
TO REAR UNIT
CN104
QGA1002C1-11X
W to B
GND
GND
GND
ADP_DC
ADP_DC
BATT_+
BATT_+
ADP_H
T_BATT
BATT_CHK
LITHIUM
TO JACK CN501
CN102
QGF0505F1-22X
LOWER CONTACT
TALLY
NC
IR_AMP
REG_4.8V
IR_OUT
GND
GND
IR_RMC
AU_SIG/R
AU_SIG/L
P_DET
V_OUT
GND
GND
JLIP_RX
JLIP_TX
Y_OUT
S_DET
C_OUT
GND
GND
EJT_SW
01 MAIN(MAIN IF)
USB
J502
QNZ0497-001
R8716
L8703
R8717
GND
USB_DP
USB_DN
USBSENS
GND
D8703
D8702
C8717
C8718
DV
J501
NNZ0041-001X
GND
TPA+
TPA-
TPB+
TPB-
GND
EL_CTL
M32_MMC_CS
P_MEDIA
MMC_CMD
GND
MMC_CLK
REG_3.1V
MMC_CD
MMC_DATA
SD_WP
TO SD
CN103
QGF0503F3-10X
UNDER CONTACT
TO MIC
CN106
QGA1201C2-05X
W to B
MIC/R
SHIELD
GND
GND
MIC/L
TP110
TO PREMDA CN401
CN110
QGF0528F1-40X
UNDER CONTACT
DEW_SENS
CAM_SW_A
CAM_SW_B
CAM_SW_C
GND
GND
GND
MONI_CHG
REG_3.1V
REG_3.1V
REG_3.1V
REG_4.8V
REG_4.8V
REG_4.8V
REG_4.8V
REC_CLK
GND
REC_DATA
RECCADJ
REF_CLK
REG_2.5V
NOSIG_LV
GND
ATFI
GND
VRB_ATF
ATF_GAIN
VRB_AGC
GND
AGC_OUT
GND
VREF_1.1
ENV_OUT
REC_CTL
RECH
PBH
HID1
HID3
DUMP_CTL
GND
M_REG4.8
M_REG4.8
M_REG4.8
M_UNREG
REG_3.1V
REG_3.1V
GND
GND
GND
GND
DRUM_ERR
DRUM_PWR
DRUM_PWR
DRUM_PWR
CAP_PWR
CAP_PWR
CAP_PWR
CAP_ERR
GND
GND
CAP_REF
CAP_FG
C_FRB
MDA_PS
LD_ON
L_FRB
DRUM_REF
DRUM_FG
DRUM_PG
MIC3
MIC2
MIC1
REC_SAFE
S_SENS
E_SENS
TAPE_LED
CAS_SW
S_REEL
T_REEL
REEL_VCC
TO PREMDA CN408
CN111
QGF0528F1-40X
UNDER CONTACT
JIG CONN
CN105
QGB0509M1-30X
B to B
AL_3VSYS
CJIG_RST
VIDL
VCOM
STH1
CVF_R
CVF_B
V_OUT
GND
MON_R
MON_G
CVF_G
MON_B
MONI_CHG
JLIP_RX
GND
JLIP_TX
PB_CLK
HID1
GND
ATFI
ENV_OUT
MAIN_VCO
DISCRI
I_MTR
IF_TX
EXMOD_1
FS_PLL
MMOD_0
MMOD_1
MONI_SW
SPK-
SPK+
M_RVS
VF_SW
GND
GND
LCD_CTL
M_REG4.8
M_REG4.8
VCOM
LCD_B
LCD_G
LCD_R
MON_B
MON_G
MON_R
VIDL
CVF_B
CVF_G
CVF_R
REG_4.8V
STH1
REG_3.1V
LV_OUT
LV_CLK
M_CS
HDCVF
VDCVF
HRP
REG_12V
REG_15V
VF_LCD
REG_15V
GND
GND
VFREG4.8
KEY_B
KEY_A
TO MONI-BW CN761
CN101
QGF0528F1-40X
UNDER CONTACT
y20231001a_rev0.1

EXCHANGE PARTS LIST

	R8716	R8717	D8702	D8703	CN103	J502
DSC DSC&Web CAM	0Ω	0Ω	※	※	QGF0503F3-10X	QNZ0497-001X
Web CAM ONLY	0Ω	0Ω	EMZ6.8N-X	EMZ6.8N-X	QGF0503F3-10X	QNZ0497-001X
NO DSC/DSC&Web CAM	※	※	※	※	※	※

NOTE: The parts with marked (※) is not used.

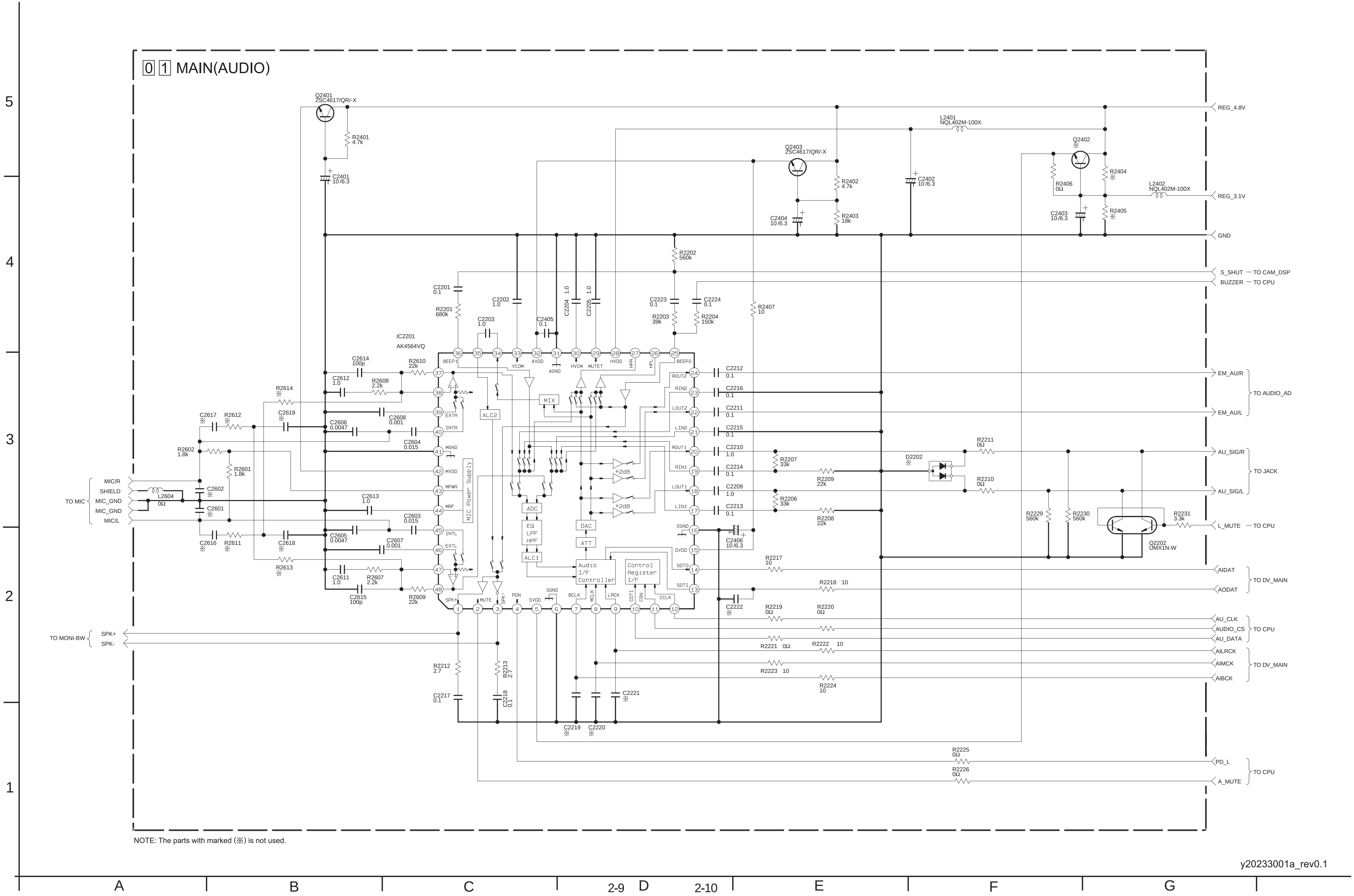
■ CPU SCHEMATIC DIAGRAM


0 1 MAIN(CPU)
IC1001
MN103S33NJA
IC1002
MB90097PFVXXX
IC1003
SN74AHC1G00K-X
IC1004
S-80920ACNC-W
IC1005
X25330S8I-2.5-X
IC1006
RS5C314-X
IC1007
IC-PST3423U-X
X1001
20MHz
X1002
NAX0564-001X
Q1001
DTA114EE-X
Q1002
UMC3N-W
Q1003
UMC3N-W
Q1004
UMC3N-W
Q1005
DTC143XE-X
Q1006
UMC3N-W
Q1007
2SC4617/QR/-X
Q1008
DTC124EE-X
Q1009
2SJ347-X
D1001
DA221-X
TO JIG CONN
TO ZOOM UNIT
TO REG
TO DV_MAIN
TO JACK
TO TG
TO CDS
TO MONI-BW
TO AUDIO
TO OP_DRIVER
TO PREMDA
TO MONI_BW
TO VIDEO_I/O
TO DSC
TO AV_STRM
TO AUDIO_AD
TO REAR
TO CAM_DSP
TO DV_MAIN
1
2
3
4
5
A
B
C
D
E
F
G

NOTE: The parts with marked (※) is not used.

y10332001a_rev0.1

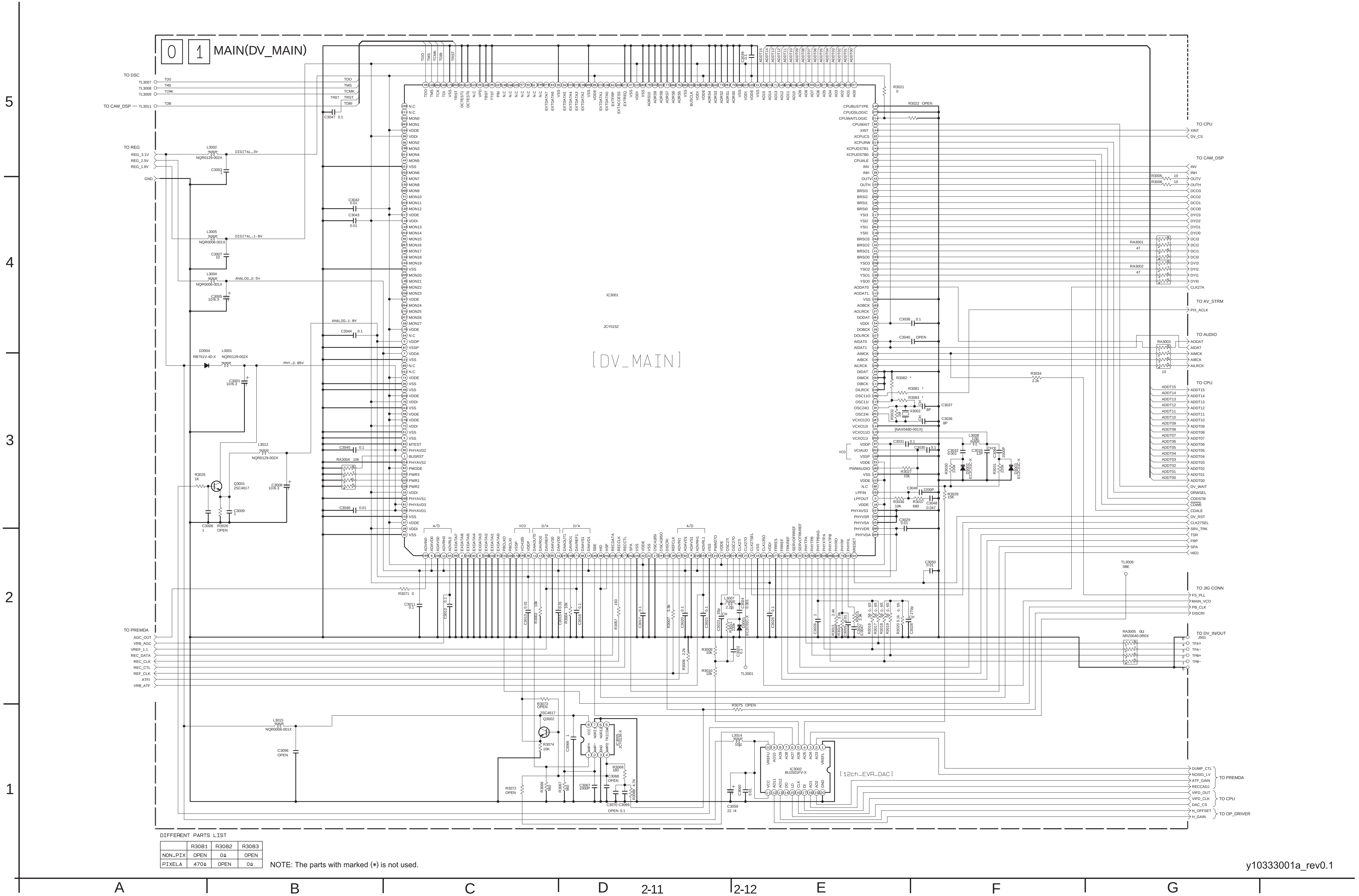
■ AUDIO SCHEMATIC DIAGRAM


5
4
3
2
1
A
B
C
D
E
F
G
0 1 MAIN(AUDIO)
Q2401
2SC4617/QR/-X
R2401
4.7k
C2401
10/6.3
Q2403
2SC4617/QR/-X
R2402
4.7k
R2403
18k
C2404
10/6.3
L2401
NQL402M-100X
C2402
10/6.3
Q2402
※
R2404
※
R2406
0Ω
R2405
※
C2403
10/6.3
L2402
NQL402M-100X
REG_4.8V
REG_3.1V
GND
S_SHUT
TO CAM_DSP
BUZZER
TO CPU
R2202
560k
C2201
0.1
R2201
680k
C2202
1.0
C2204
1.0
C2205
1.0
C2203
1.0
C2405
0.1
C2223
0.1
R2203
39k
C2224
0.1
R2204
150k
R2407
10
IC2201
AK4564VQ
BEEP1
VCOM
AVDD
AGND
HVCM
MUTET
HVDD
HPR
HPL
BEEP2
ROUT2
RIN2
LOUT2
LIN2
ROUT1
RIN1
LOUT1
LIN1
DGND
DVDD
SDTO
SDTI
EXTR
INTR
MGND
MVDD
MPWR
MRF
INTL
EXTL
SPK+
MUTE
SPK-
PDN
SVDD
SGND
BCLK
MCLK
LRCK
CDTI
CSN
CCLK
MIX
ALC2
MIC Power Supply
ADC
EQ
LPF
HPF
ALC1
DAC
ATT
+2dB
+2dB
Audio
I/F
Controller
Control
Register
I/F
C2614
100p
R2610
22k
C2612
1.0
R2608
2.2k
R2614
※
C2619
※
C2608
0.001
C2617
※
R2612
※
C2606
0.0047
C2604
0.015
R2602
1.8k
R2601
1.8k
C2602
※
L2604
0Ω
C2601
※
C2613
1.0
C2603
0.015
C2616
※
R2611
※
C2618
※
C2605
0.0047
C2607
0.001
R2613
※
C2611
1.0
R2607
2.2k
C2615
100p
R2609
22k
TO MIC
MIC/R
SHIELD
MIC_GND
MIC_GND
MIC/L
TO MONI-BW
SPK+
SPK-
R2212
2.7
C2217
0.1
R2213
2.7
C2218
0.1
C2219
※
C2220
※
C2221
※
C2212
0.1
C2216
0.1
C2211
0.1
C2215
0.1
C2210
1.0
C2214
0.1
C2209
1.0
C2213
0.1
C2406
10/6.3
C2222
※
R2207
33k
R2209
22k
R2206
33k
R2208
22k
D2202
※
R2211
0Ω
R2210
0Ω
R2229
560k
R2230
560k
Q2202
UMX1N-W
R2231
3.3k
R2217
10
R2218 10
R2219
0Ω
R2220
0Ω
R2221 0Ω
R2222 10
R2223 10
R2224
10
R2225
0Ω
R2226
0Ω
EM_AU/R
EM_AU/L
TO AUDIO_AD
AU_SIG/R
AU_SIG/L
TO JACK
L_MUTE
TO CPU
AIDAT
AODAT
TO DV_MAIN
AU_CLK
AUDIO_CS
AU_DATA
TO CPU
AILRCK
AIMCK
AIBCK
TO DV_MAIN
PD_L
A_MUTE
TO CPU

NOTE: The parts with marked (※) is not used.

y20233001a_rev0.1

■ DV_MAIN SCHEMATIC DIAGRAM


0 1 MAIN(DV_MAIN)
IC3001
JCY0152
[DV_MAIN]
IC3002
BU2501FV-X
[12ch_EVR_DAC]
IC3005
JCY0138-X
TO DSC
TL3007
TL3008
TL3009
TO CAM_DSP
TL3011
TO REG
REG_3.1V
REG_2.5V
REG_1.8V
GND
L3002
NQR0129-002X
DIGITAL_3V
L3005
NQR0006-001X
DIGITAL_1.8V
L3004
NQR0006-001X
ANALOG_2.5V
ANALOG_1.8V
D3004
RB751V-40-X
L3001
NQR0129-002X
PHY_2.85V
L3012
NQR0129-002X
Q3001
2SC4617
Q3002
2SC4617
TO PREMDA
AGC_OUT
VRB_AGC
VREF_1.1
REC_DATA
REC_CLK
REC_CTL
REF_CLK
ATFI
VRB_ATF
L3015
NQR0006-001X
TO CPU
XINT
DV_CS
TO CAM_DSP
INV
INH
OUTV
OUTH
TO AV_STRM
PIX_ACLK
TO AUDIO
AODAT
AIDAT
AIMCK
AIBCK
AILRCK
TO CPU
TL3006
SBE
TO JIG CONN
FS_PLL
MAIN_VCO
PB_CLK
DISCRI
TO DV_IN/OUT
J501
TPA+
TPA−
TPB+
TPB−
RA3005
NRZ0040-0R0X
DUMP_CTL
NOSIG_LV
ATF_GAIN
RECCADJ
TO PREMDA
VIFD_OUT
VIFD_CLK
DAC_CS
TO CPU
H_OFFSET
H_GAIN
TO OP_DRIVER
X3002
NAX0480-001X
VCO
TL3001
1
2
3
4
5
A
B
C
D
E
F
G

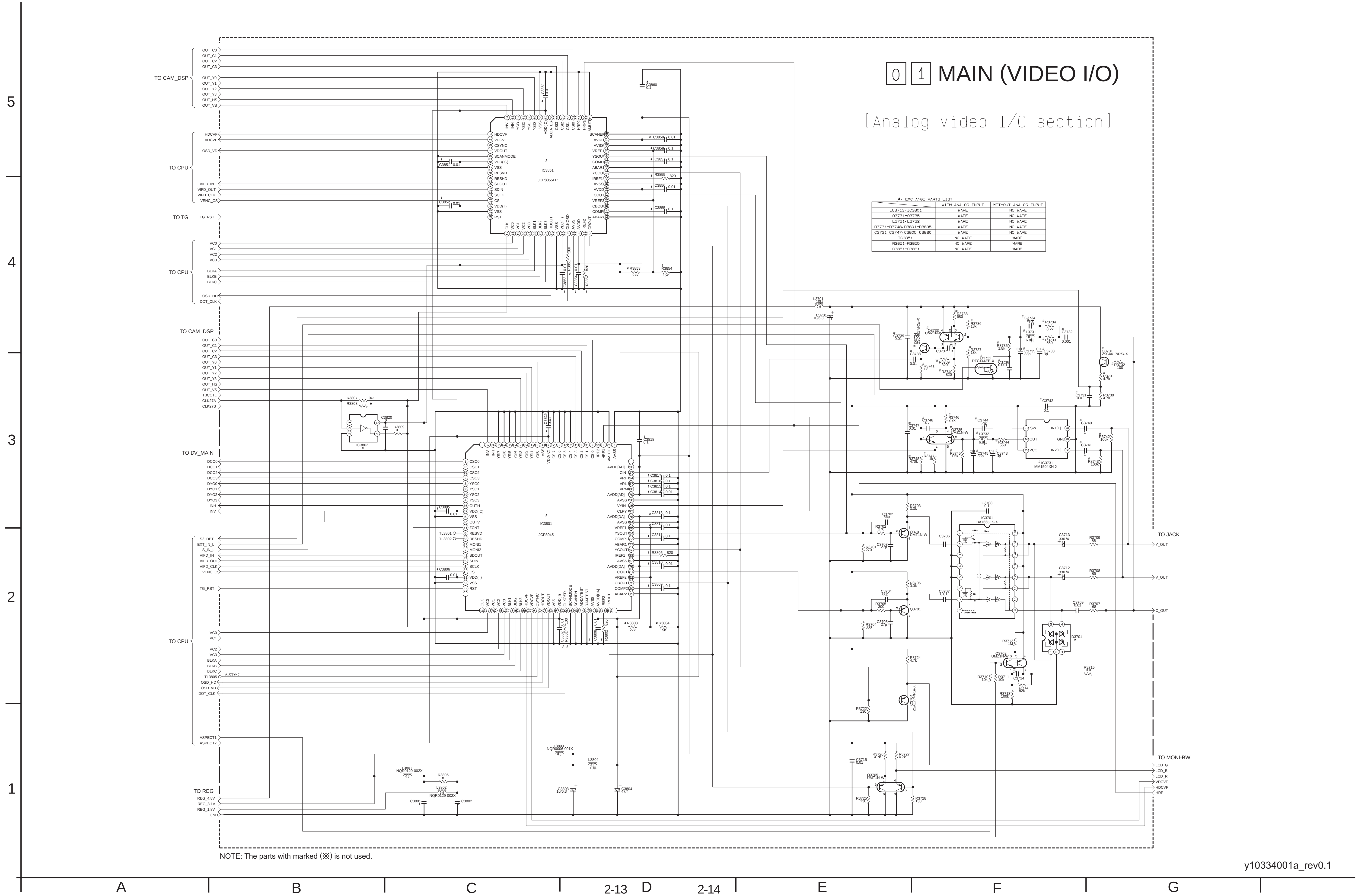
DIFFERENT PARTS LIST

	R3081	R3082	R3083
NON_PIX	OPEN	0Ω	OPEN
PIXELA	470Ω	OPEN	0Ω

NOTE: The parts with marked (*) is not used.

y10333001a_rev0.1

■ VIDEO I/O SCHEMATIC DIAGRAM



01 MAIN (VIDEO I/O)
[Analog video I/O section]
TO CAM_DSP
OUT_C0
OUT_C1
OUT_C2
OUT_C3
OUT_Y0
OUT_Y1
OUT_Y2
OUT_Y3
OUT_HS
OUT_VS
TO CPU
HDCVF
VDCVF
OSD_VD
VIFD_IN
VIFD_OUT
VIFD_CLK
VENC_CS
TO TG
TG_RST
VC0
VC1
VC2
VC3
BLKA
BLKB
BLKC
OSD_HD
DOT_CLK
TBCCTL
CLK27A
CLK27B
TO DV_MAIN
DCO0
DCO1
DCO2
DCO3
DYO0
DYO1
DYO2
DYO3
INH
INV
S2_DET
EXT_IN_L
S_IN_L
A_CSYNC
ASPECT1
ASPECT2
TO REG
REG_4.8V
REG_3.1V
REG_1.8V
GND
IC3851
JCP8055FP
IC3801
JCP8045
IC3802
IC3701
BA7665FS-X
IC3731
MM1504XN-X
D3701
TL3801
TL3802
TL3805
L3801
NQR0129-002X
L3802
NQR0129-002X
L3803
NQR0006-001X
L3804
L3701
TO JACK
Y_OUT
V_OUT
C_OUT
TO MONI-BW
LCD_G
LCD_B
LCD_R
VDCVF
HDCVF
HRP
5
4
3
2
1
A
B
C
D
E
F
G

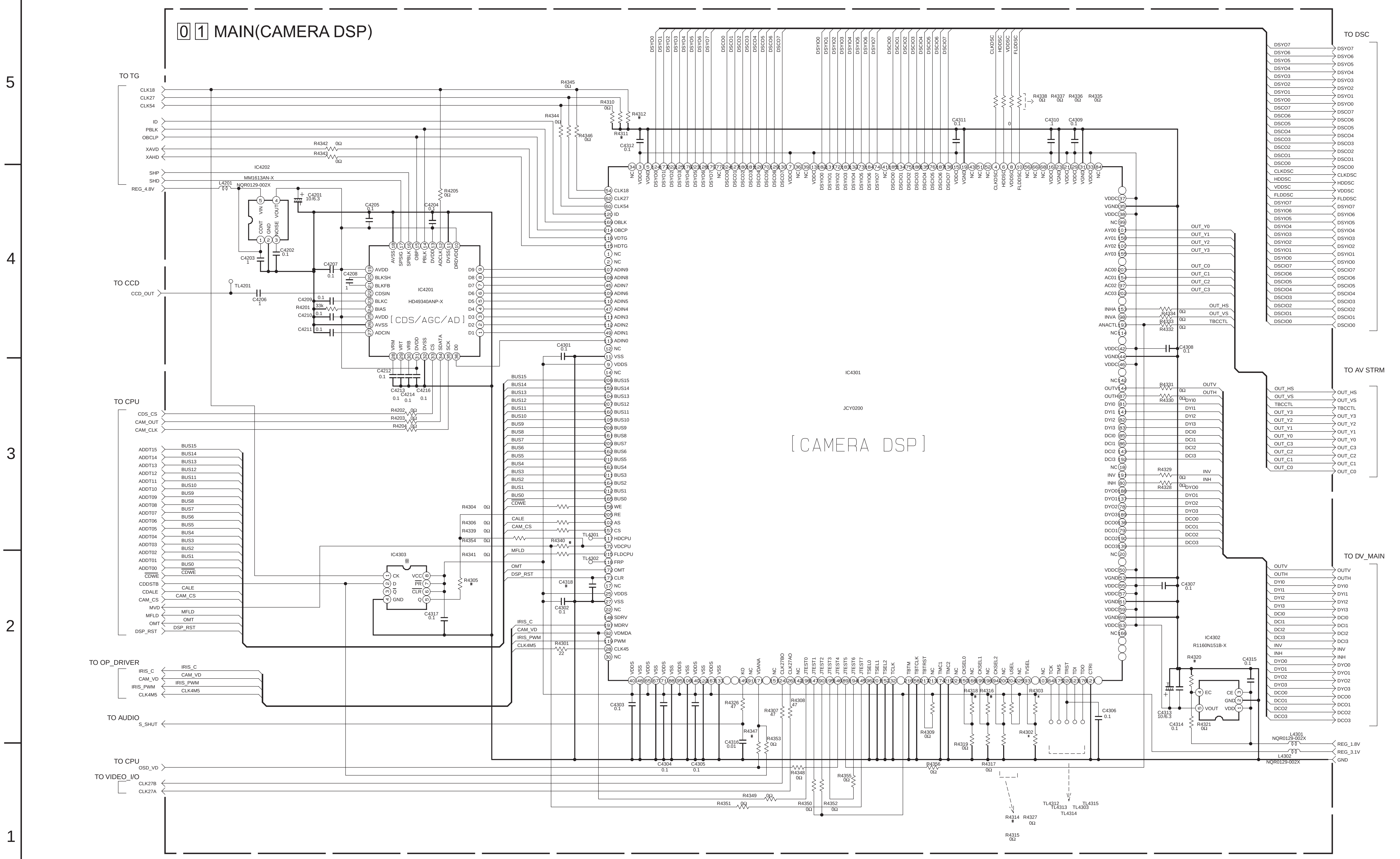
#: EXCHANGE PARTS LIST

	WITH ANALOG INPUT	WITHOUT ANALOG INPUT
IC3713, IC3801	WARE	NO WARE
Q3731-Q3735	WARE	NO WARE
L3731, L3732	WARE	NO WARE
R3731-R3748, R3801-R3805	WARE	NO WARE
C3731-C3747, C3805-C3820	WARE	NO WARE
IC3851	NO WARE	WARE
R3851-R3855	NO WARE	WARE
C3851-C3861	NO WARE	WARE

NOTE: The parts with marked (※) is not used.

y10334001a_rev0.1

CAMERA DSP SCHEMATIC DIAGRAM


0 1 MAIN(CAMERA DSP)
5
4
3
2
1
TO TG
CLK18
CLK27
CLK54
ID
PBLK
OBCLP
XAVD
XAHD
SHP
SHD
REG_4.8V
TO CCD
CCD_OUT
TO CPU
CDS_CS
CAM_OUT
CAM_CLK
ADDT15
ADDT00
CDWE
CDDSTB
CDALE
CAM_CS
MVD
MFLD
OMT
DSP_RST
TO OP_DRIVER
IRIS_C
CAM_VD
IRIS_PWM
CLK4M5
TO AUDIO
S_SHUT
TO CPU
OSD_VD
TO VIDEO_I/O
CLK27B
CLK27A
IC4202
MM1613AN-X
L4201
NQR0129-002X
IC4201
HD49340ANP-X
[CDS/AGC/AD]
IC4303
IC4301
JCY0200
[CAMERA DSP]
IC4302
R1160N151B-X
TO DSC
TO AV STRM
TO DV_MAIN
OUT_HS
OUT_VS
TBCCTL
OUT_Y3
OUT_Y2
OUT_Y1
OUT_Y0
OUT_C3
OUT_C2
OUT_C1
OUT_C0
OUTV
OUTH
DYI0
DYI1
DYI2
DYI3
DCI0
DCI1
DCI2
DCI3
INV
INH
DYO0
DYO1
DYO2
DYO3
DCO0
DCO1
DCO2
DCO3
REG_1.8V
REG_3.1V
GND
L4301
NQR0129-002X
L4302
NQR0129-002X
DSYO7
DSYO0
DSCO7
DSCO0
CLKDSC
HDDSC
VDDSC
FLDDSC
DSYIO7
DSYIO0
DSCIO7
DSCIO0

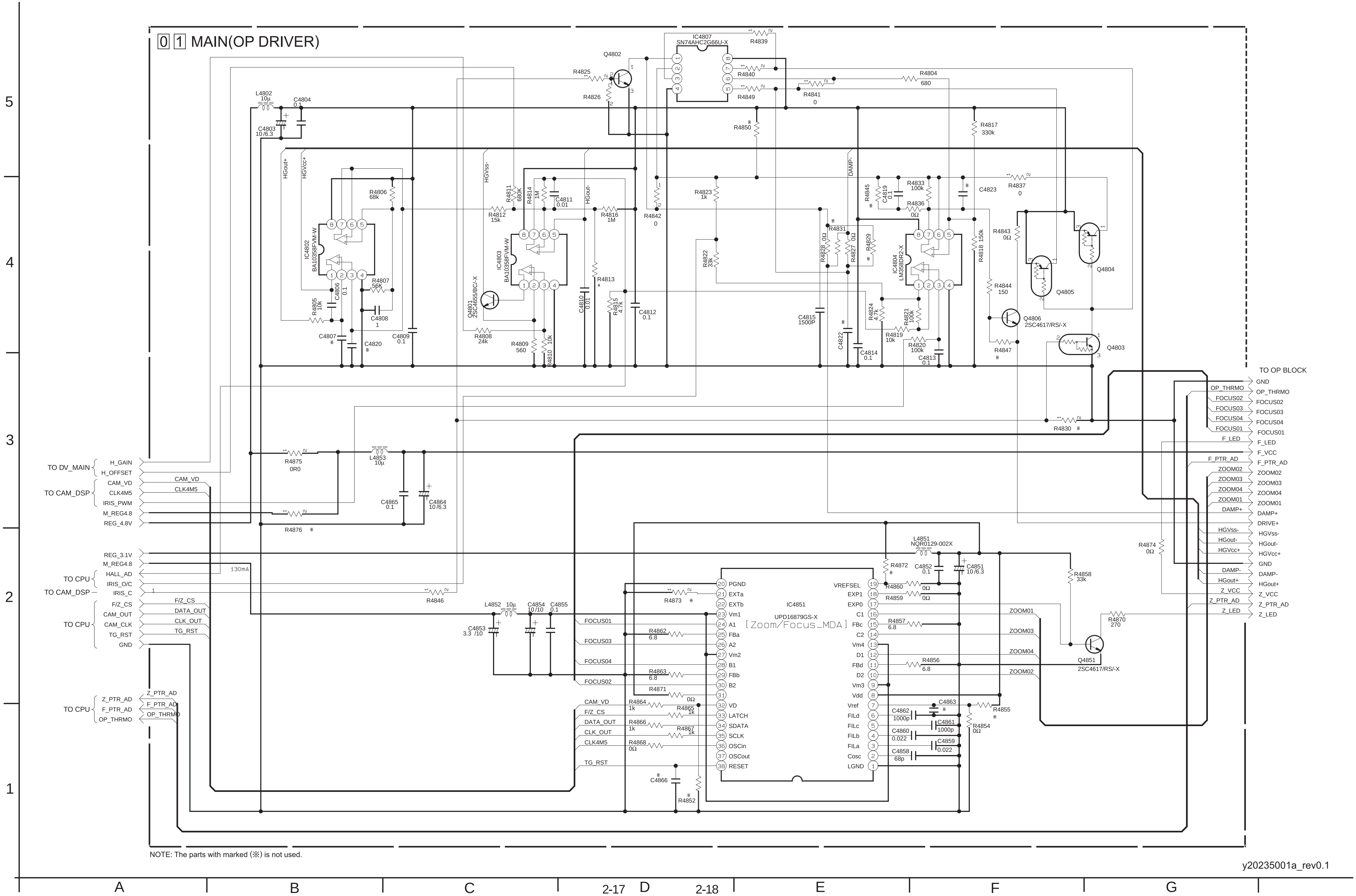
	R4302	R4303
NTSC	0 Ω	※
PAL	※	0 Ω

NOTE: The parts with marked (※) is not used.

y10335001a_rev0.1

A B C D E F G

■ OP DRIVER SCHEMATIC DIAGRAM

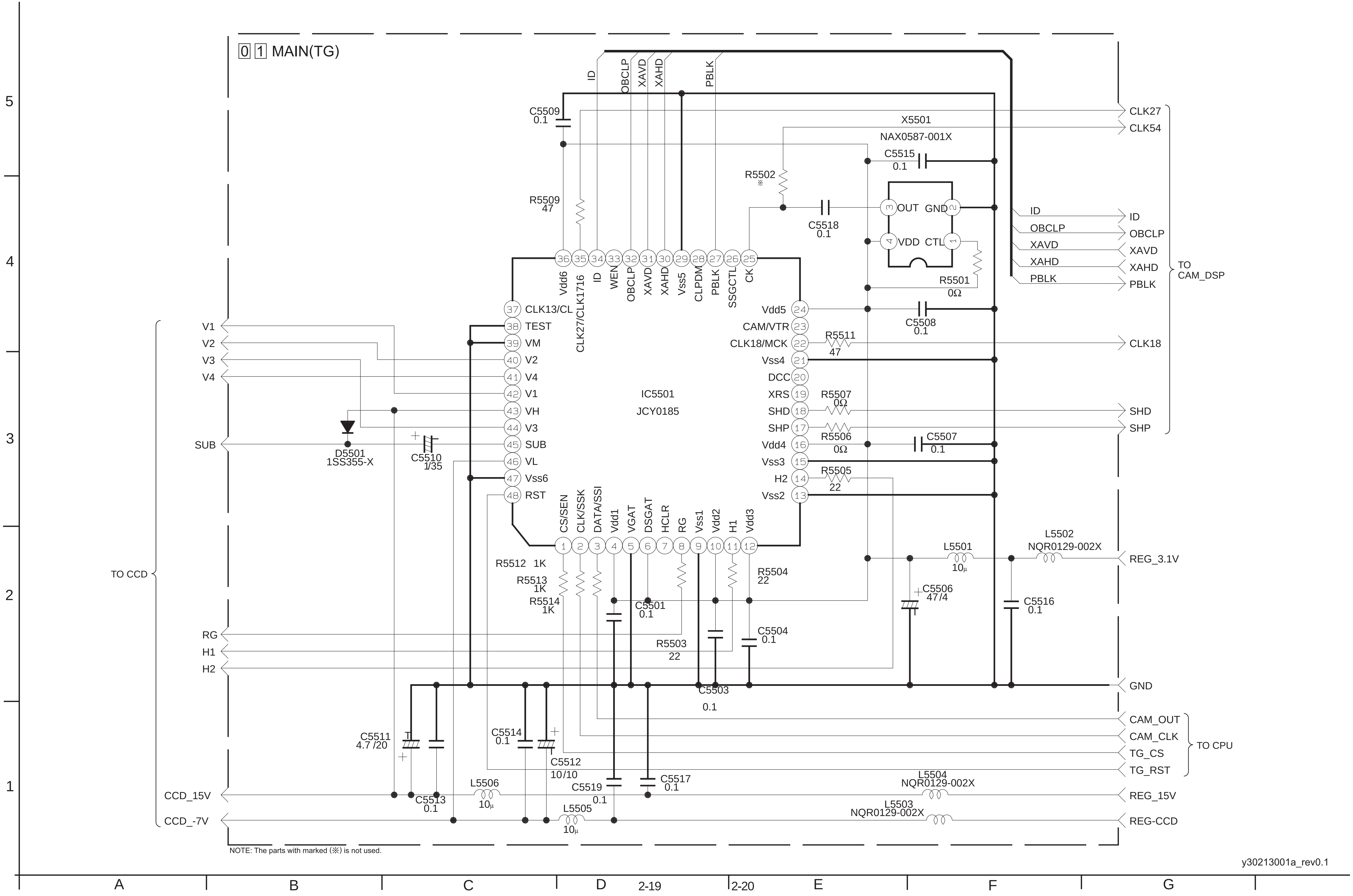


0 1 MAIN(OP DRIVER)
TO DV_MAIN
H_GAIN
H_OFFSET
TO CAM_DSP
CAM_VD
CLK4M5
IRIS_PWM
M_REG4.8
REG_4.8V
REG_3.1V
TO CPU
HALL_AD
IRIS_O/C
IRIS_C
F/Z_CS
CAM_OUT
CAM_CLK
TG_RST
GND
Z_PTR_AD
F_PTR_AD
OP_THRMO
DATA_OUT
CLK_OUT
130mA
TO OP BLOCK
FOCUS02
FOCUS03
FOCUS04
FOCUS01
F_LED
F_VCC
F_PTR_AD
ZOOM02
ZOOM03
ZOOM04
ZOOM01
DAMP+
DRIVE+
HGVss-
HGout-
HGVcc+
HGout+
DAMP-
Z_VCC
Z_PTR_AD
Z_LED
IC4802 BA10358FVM-W
IC4803 BA10358FVM-W
IC4804 LM358DR2-X
IC4807 SN74AHC2G66U-X
IC4851 UPD16879GS-X
[Zoom/Focus_MDA]
PGND
EXTa
EXTb
Vm1
A1
FBa
A2
Vm2
B1
FBb
B2
VD
LATCH
SDATA
SCLK
OSCin
OSCout
RESET
VREFSEL
EXP1
EXP0
C1
FBc
C2
Vm4
D1
FBd
D2
Vm3
Vdd
Vref
FILd
FILc
FILb
FILa
Cosc
LGND
Q4801 2SC4655/BC/-X
Q4802
Q4803
Q4804
Q4805
Q4806 2SC4617/RS/-X
Q4851 2SC4617/RS/-X
L4802 10μ
L4851 NQR0129-002X
L4852 10μ
L4853 10μ
C4803 10/6.3
C4804 0.1
C4806 0.1
C4807
C4808 1
C4809 0.1
C4810 0.01
C4811 0.01
C4812 0.1
C4813 0.1
C4814 0.1
C4815 1500P
C4819 0.1
C4820
C4822
C4823
C4851 10/6.3
C4852 0.1
C4853 3.3/10
C4854 10/10
C4855 0.1
C4858 68p
C4859 0.022
C4860 0.022
C4861 1000p
C4862 1000p
C4863
C4864 10/6.3
C4865 0.1
C4866
R4804 680
R4805 10k
R4806 68k
R4807 56K
R4808 24k
R4809 560
R4810 10k
R4811 680K
R4812 15k
R4813
R4814 1M
R4815 4.7k
R4816 1M
R4817 330k
R4818 150k
R4819 10k
R4820 100k
R4821 100k
R4822 33k
R4823 1k
R4824 4.7k
R4825
R4826
R4827 0Ω
R4828 0Ω
R4829
R4830
R4831
R4833 100k
R4836 0Ω
R4837 0
R4839
R4840
R4841 0
R4842 0
R4843 0Ω
R4844 150
R4845
R4846
R4847
R4849
R4850
R4852
R4854 0Ω
R4855
R4856 6.8
R4857 6.8
R4858 33k
R4859 0Ω
R4860 0Ω
R4862 6.8
R4863 6.8
R4864 1k
R4865 1k
R4866 1k
R4867 1k
R4868 0Ω
R4870 270
R4871 0Ω
R4872
R4873
R4874 0Ω
R4875 0R0
R4876
HGout+
HGVcc+
HGVss-
HGout-
DAMP-
A
B
C
D
E
F
G
1
2
3
4
5

NOTE: The parts with marked (※) is not used.

y20235001a_rev0.1

■ TG SCHEMATIC DIAGRAM

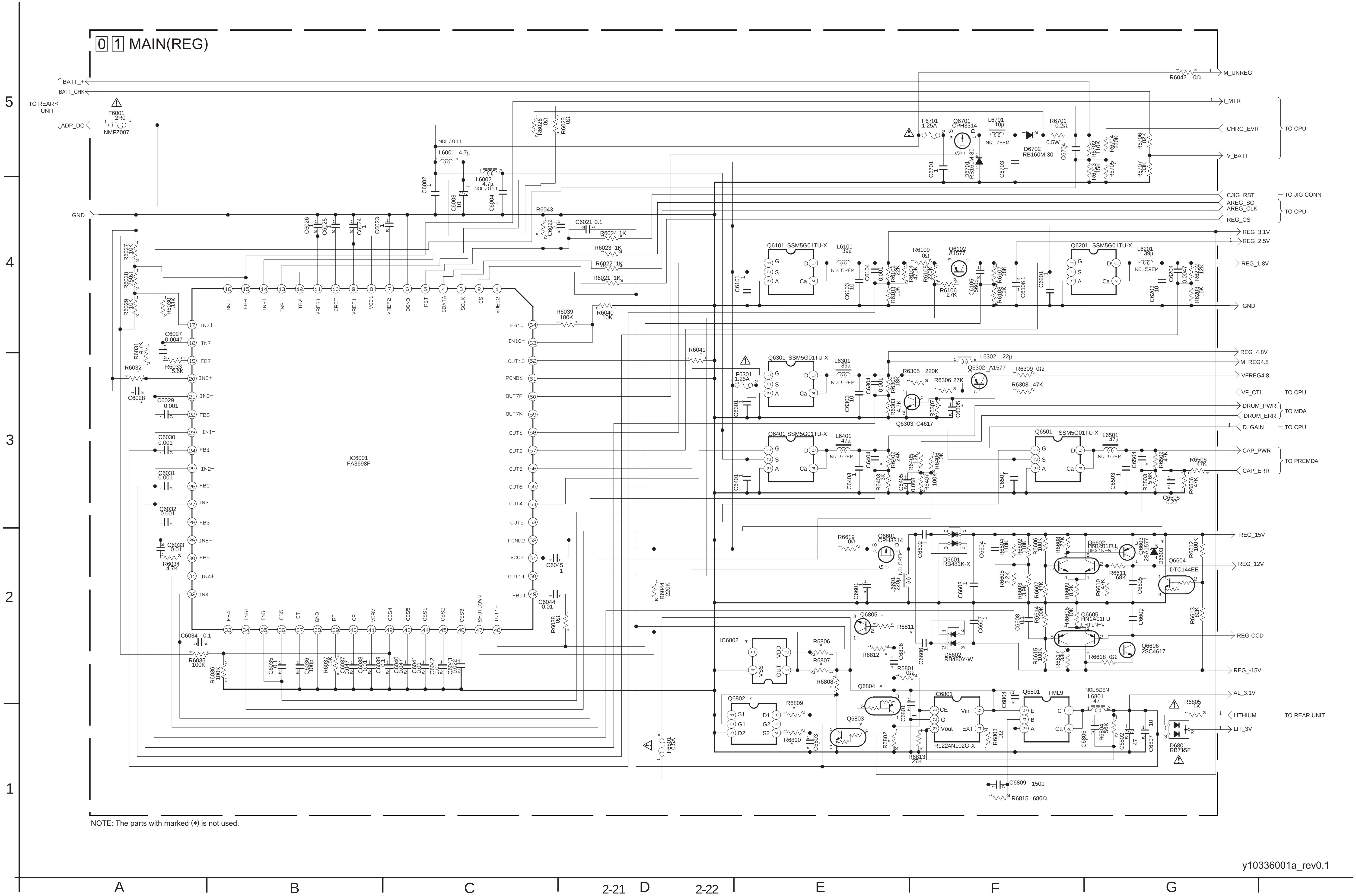


0 1 MAIN(TG)
IC5501
JCY0185
X5501
NAX0587-001X
OUT
GND
VDD
CTL
1 CLK13/CL
38 TEST
39 VM
40 V2
41 V4
42 V1
43 VH
44 V3
45 SUB
46 VL
47 Vss6
48 RST
36 Vdd6
35 CLK27/CLK1716
34 ID
33 WEN
32 OBCLP
31 XAVD
30 XAHD
29 Vss5
28 CLPDM
27 PBLK
26 SSGCTL
25 CK
24 Vdd5
23 CAM/VTR
22 CLK18/MCK
21 Vss4
20 DCC
19 XRS
18 SHD
17 SHP
16 Vdd4
15 Vss3
14 H2
13 Vss2
1 CS/SEN
2 CLK/SSK
3 DATA/SSI
4 Vdd1
5 VGAT
6 DSGAT
7 HCLR
8 RG
9 Vss1
10 Vdd2
11 H1
12 Vdd3
C5509 0.1
R5509 47
R5502 ※
C5515 0.1
C5518 0.1
R5501 0Ω
C5508 0.1
R5511 47
R5507 0Ω
R5506 0Ω
C5507 0.1
R5505 22
L5501 10μ
L5502 NQR0129-002X
C5506 47/4
C5516 0.1
R5504 22
C5504 0.1
C5501 0.1
R5503 22
C5503 0.1
R5512 1K
R5513 1K
R5514 1K
D5501 1SS355-X
C5510 1/35
C5511 4.7/20
C5513 0.1
C5514 0.1
C5512 10/10
L5506 10μ
L5505 10μ
C5519 0.1
C5517 0.1
L5504 NQR0129-002X
L5503 NQR0129-002X
ID
OBCLP
XAVD
XAHD
PBLK
CLK27
CLK54
ID
OBCLP
XAVD
XAHD
PBLK
TO CAM_DSP
CLK18
SHD
SHP
REG_3.1V
GND
CAM_OUT
CAM_CLK
TG_CS
TG_RST
TO CPU
REG_15V
REG-CCD
V1
V2
V3
V4
SUB
TO CCD
RG
H1
H2
CCD_15V
CCD_-7V
A
B
C
D
E
F
G
1
2
3
4
5

NOTE: The parts with marked (※) is not used.

y30213001a_rev0.1

■ REG SCHEMATIC DIAGRAM

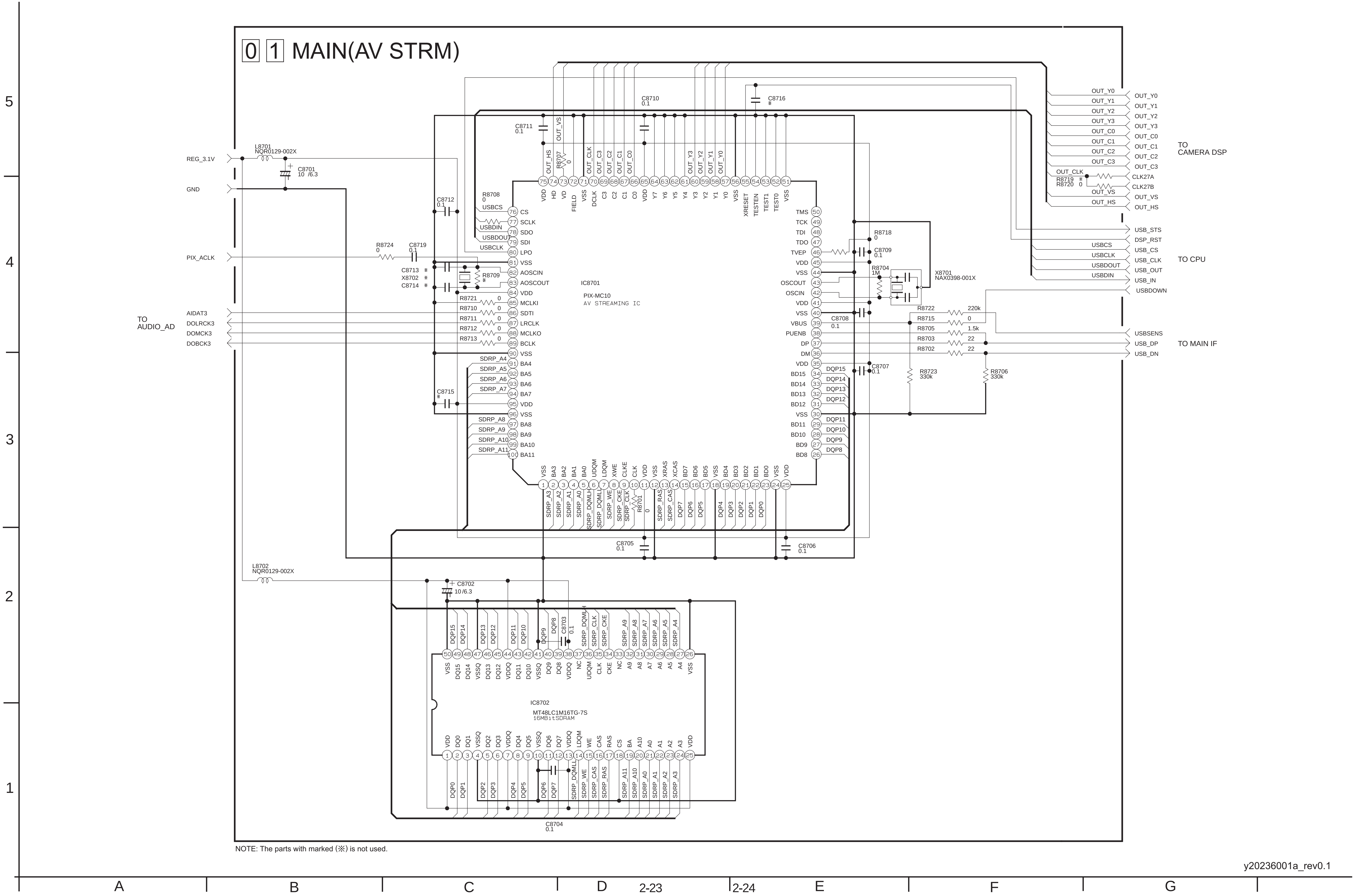


01 MAIN(REG)
TO REAR UNIT
BATT_+
BATT_CHK
ADP_DC
F6001 2R0 NMFZ007
GND
IC6001 FA3698F
L6001 4.7µ
L6002 4.7µ
NQLZ011
R6043
R6044 220K
R6025 0Ω
R6026 0Ω
F6701 1.25A
Q6701 CPH3314
L6701 10µ
D6702 RB160M-30
D6701 RB160M-30
R6701 0.2Ω
R6042 0Ω
M_UNREG
I_MTR
CHRG_EVR
V_BATT
TO CPU
CJIG_RST
TO JIG CONN
AREG_SO
AREG_CLK
REG_CS
REG_3.1V
REG_2.5V
REG_1.8V
Q6101 SSM5G01TU-X
L6101 39µ
Q6102 A1577
Q6201 SSM5G01TU-X
L6201 39µ
Q6301 SSM5G01TU-X
F6301 1.25A
L6301 39µ
L6302 22µ
Q6302 A1577
Q6303 C4617
REG_4.8V
M_REG4.8
VFREG4.8
VF_CTL
DRUM_PWR
DRUM_ERR
TO MDA
D_GAIN
Q6401 SSM5G01TU-X
L6401 47µ
Q6501 SSM5G01TU-X
L6501 47µ
CAP_PWR
CAP_ERR
TO PREMDA
Q6601 CPH3314
L6601 220µ
D6601 RB481K-X
Q6602 HN1C01FU
Q6603 2SA1577
D6603
Q6604 DTC144EE
REG_15V
REG_12V
Q6605 HN1A01FU
Q6606 2SC4617
D6602 RB480Y-W
REG-CCD
REG_-15V
IC6802
Q6802
Q6803
Q6804
Q6805
IC6801 R1224N102G-X
Q6801 FML9
L6801 47
F6801 0.5A
D6801 RB715F
AL_3.1V
LITHIUM
LIT_3V
TO REAR UNIT
C6809 150p
R6815 680Ω
A
B
C
D
E
F
G
1
2
3
4
5

NOTE: The parts with marked (*) is not used.

y10336001a_rev0.1

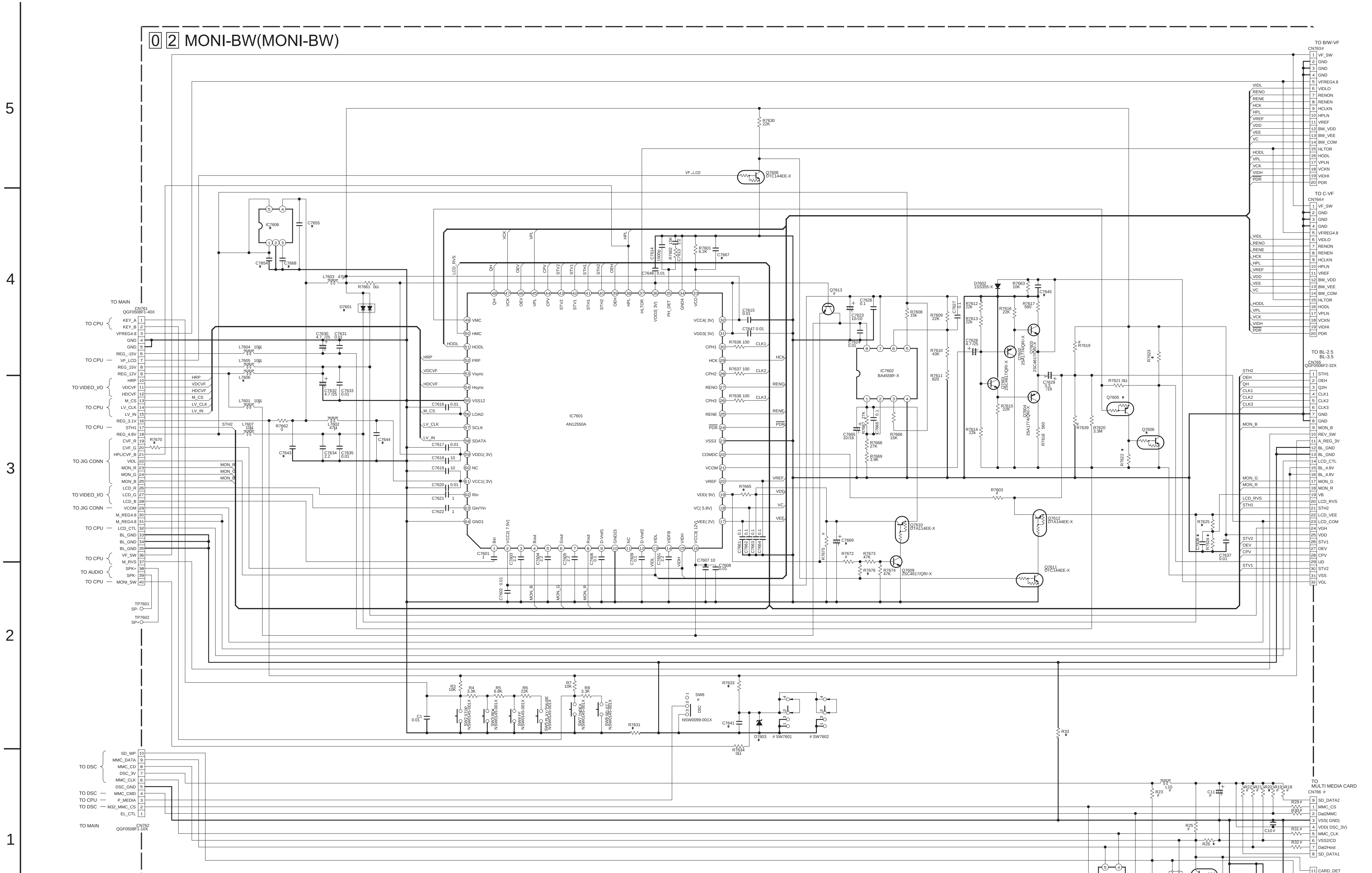
■ AV STRM SCHEMATIC DIAGRAM



0 1 MAIN(AV STRM)
REG_3.1V
GND
PIX_ACLK
TO AUDIO_AD
AIDAT3
DOLRCK3
DOMCK3
DOBCK3
L8701 NQR0129-002X
C8701 10 /6.3
L8702 NQR0129-002X
C8702 10/6.3
C8711 0.1
C8710 0.1
C8716 ※
C8712 0.1
R8708 0
R8724 0
C8719 0.1
C8713 ※
X8702 ※
C8714 ※
R8709 ※
R8721 0
R8710 0
R8711 0
R8712 0
R8713 0
C8715 ※
R8707 0
R8701 0
C8705 0.1
C8706 0.1
C8703 0.1
C8704 0.1
R8718 0
C8709 0.1
R8704 1M
X8701 NAX0398-001X
C8708 0.1
C8707 0.1
R8722 220k
R8715 0
R8705 1.5k
R8703 22
R8702 22
R8723 330k
R8706 330k
R8719 ※
R8720 0
IC8701
PIX-MC10
AV STREAMING IC
IC8702
MT48LC1M16TG-7S
16MBitSDRAM
USBCS
USBDIN
USBDOUT
USBCLK
CS
SCLK
SDO
SDI
LPO
VSS
AOSCIN
AOSCOUT
VDD
MCLKI
SDTI
LRCLK
MCLKO
BCLK
BA4
BA5
BA6
BA7
BA8
BA9
BA10
BA11
SDRP_A4
SDRP_A5
SDRP_A6
SDRP_A7
SDRP_A8
SDRP_A9
SDRP_A10
SDRP_A11
OUT_HS
OUT_VS
OUT_CLK
OUT_C3
OUT_C2
OUT_C1
OUT_C0
OUT_Y3
OUT_Y2
OUT_Y1
OUT_Y0
HD
VD
FIELD
DCLK
C3
C2
C1
C0
Y7
Y6
Y5
Y4
Y3
Y2
Y1
Y0
XRESET
TESTEN
TEST1
TEST0
TMS
TCK
TDI
TDO
TVEP
OSCOUT
OSCIN
VBUS
PUENB
DP
DM
BD15
BD14
BD13
BD12
BD11
BD10
BD9
BD8
DQP15
DQP14
DQP13
DQP12
DQP11
DQP10
DQP9
DQP8
BA3
BA2
BA1
BA0
UDQM
LDQM
XWE
CLKE
CLK
XRAS
XCAS
BD7
BD6
BD5
BD4
BD3
BD2
BD1
BD0
SDRP_A3
SDRP_A2
SDRP_A1
SDRP_A0
SDRP_DQMLH
SDRP_DQMLL
SDRP_WE
SDRP_CKE
SDRP_CLK
SDRP_RAS
SDRP_CAS
DQP7
DQP6
DQP5
DQP4
DQP3
DQP2
DQP1
DQP0
VSSQ
VDDQ
DQ15
DQ14
DQ13
DQ12
DQ11
DQ10
DQ9
DQ8
NC
A9
A8
A7
A6
A5
A4
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
WE
CAS
RAS
BA
A10
A0
A1
A2
A3
SDRP_DQMLH
SDRP_CLK
SDRP_CKE
SDRP_DQMLL
TO CAMERA DSP
OUT_Y0
OUT_Y1
OUT_Y2
OUT_Y3
OUT_C0
OUT_C1
OUT_C2
OUT_C3
CLK27A
CLK27B
OUT_VS
OUT_HS
TO CPU
USB_STS
DSP_RST
USB_CS
USB_CLK
USB_OUT
USB_IN
USBDOWN
TO MAIN IF
USBSENS
USB_DP
USB_DN
5
4
3
2
1
A
B
C
D
E
F
G

NOTE: The parts with marked (※) is not used.

■ MONI-BW SCHEMATIC DIAGRAM



0 2 MONI-BW(MONI-BW)
5
4
3
2
1
TO MAIN
CN761 QGF0508F1-40X
TO CPU
TO VIDEO_I/O
TO JIG CONN
TO AUDIO
TO DSC
CN762 QGF0508F1-10X
TO B/W-VF
CN763
TO C-VF
CN764
TO BL-2.5 BL-3.5
CN765 QGF0506F2-32X
TO MULTI MEDIA CARD
CN766
IC7601 AN12550A
IC7602 BA4558F-X
IC7606
Q7608 DTC144EE-X
Q7610 DTA114EE-X
Q7612 DTA114EE-X
Q7611 DTC144EE-X
Q7609 2SC4617/QRI-X
D7602 1SS355-X
SW6 NSW0099-001X
SW7601
SW7602
TP7601 SP-
TP7602 SP+

Exchange Parts List

	CN763	CN764	SW7601	SW7602	R7603	R7619	R7639
2.5inch MODEL	QGF0507F3-20X	※	NSW0200-001X	※	68K	※	※
3.5inch MODEL	※	QGF0503C1-20X	※	NSW0200-001X	※	15K	18K

	Q7613	R7672	R7675
NTSC	※	0	※
PAL	2SD2654/VW/-X	390K	270K

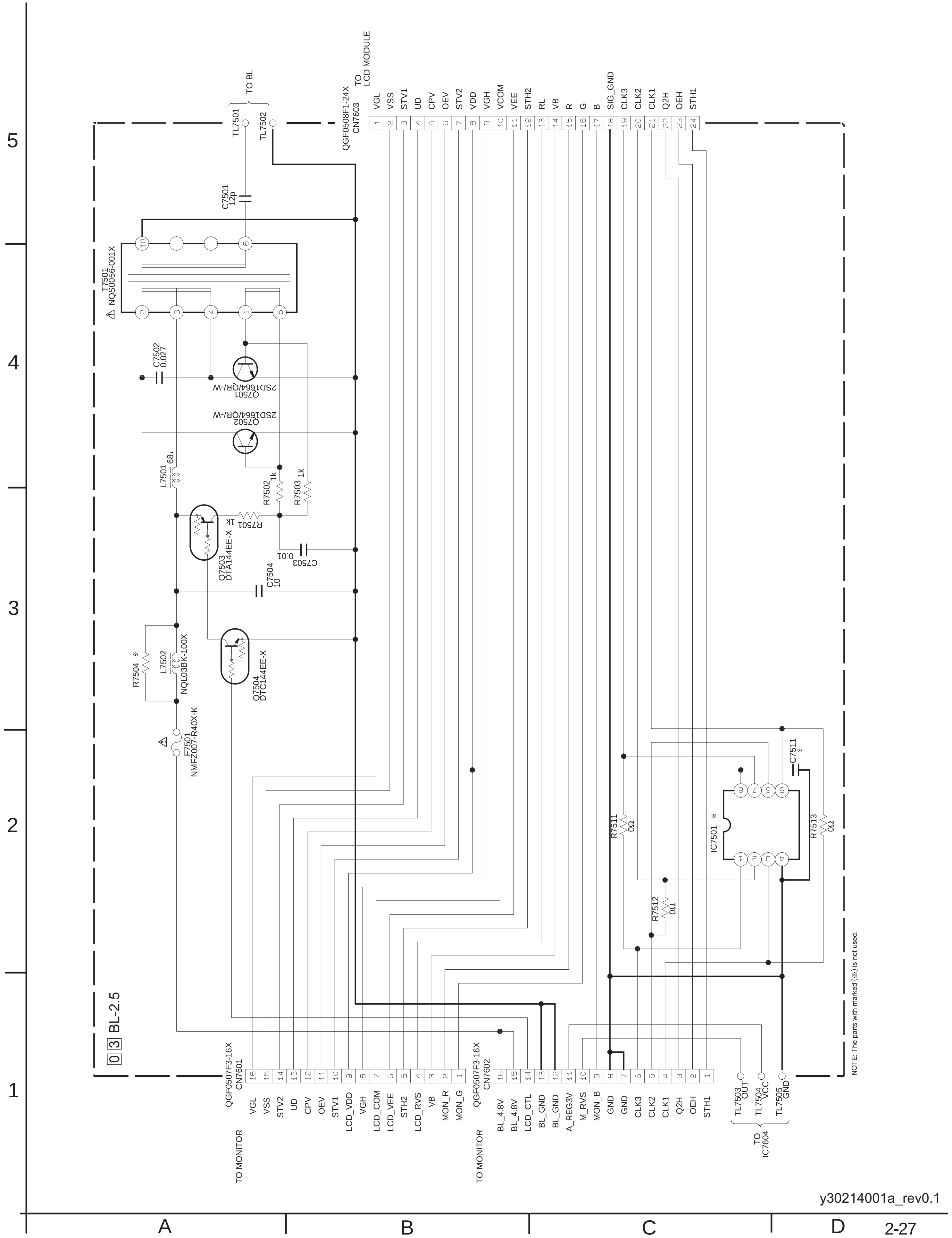
	CN762	CN766	SW6	R18	R19	R21	R22	R23	R25	R29	R30	R31	R32	C10	C11	L10	D11
DSC MODEL	QGF0508F1-10X	NNZ0058-001X	NSW0099-001X	47K	10K	10K	47K	100K	47K	0	0	0	0	0.1	10/6.3	NQR0129-002X	RSA6.1J4-W
NON DSC MODEL	※	※	※	※	※	※	※	※	※	※	※	※	※	※	※	※	※

NOTE: The parts with marked (※) is not used.

y10337001a_rev0.1

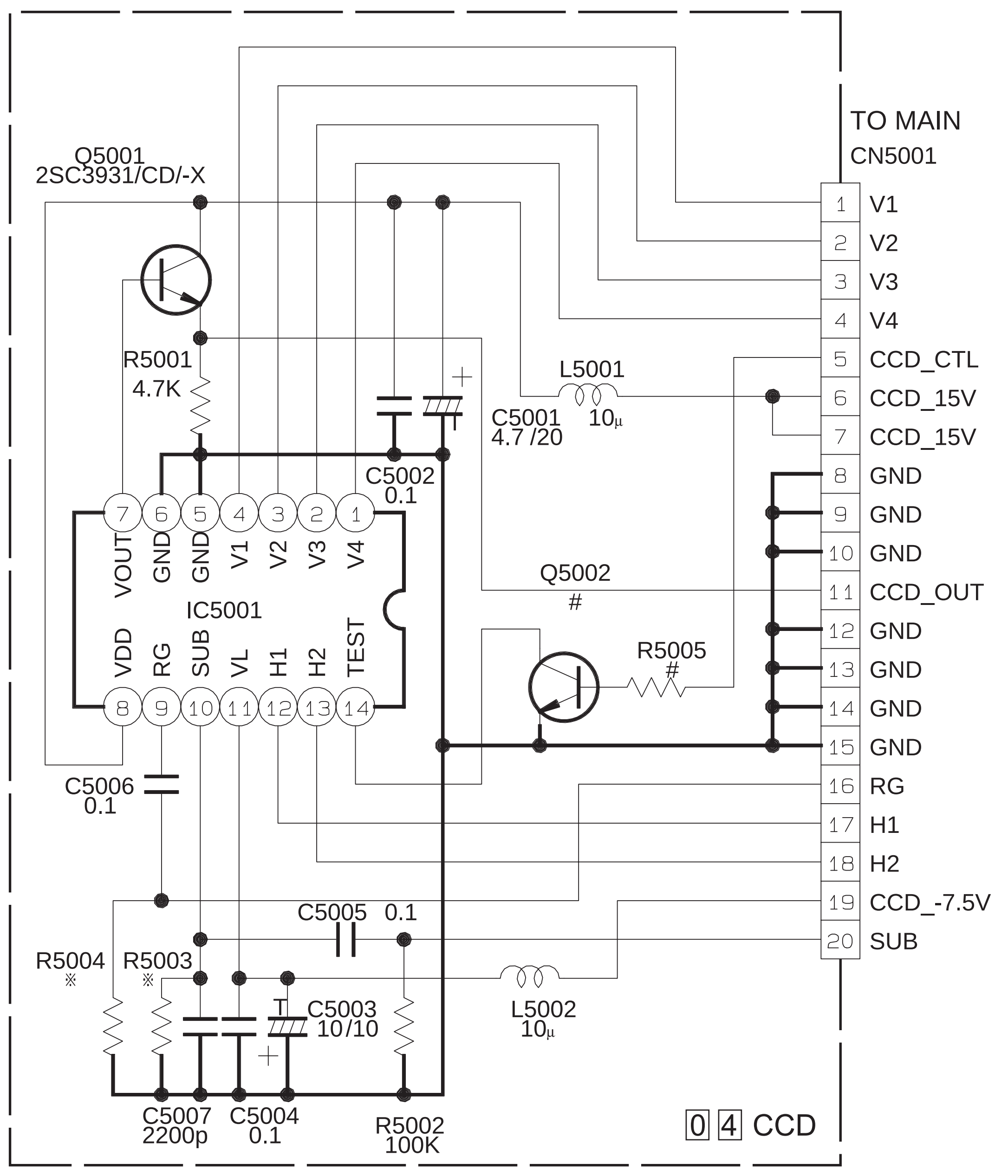
A B C D E F G

■ BL-2.5 SCHEMATIC DIAGRAM


TO BL
TL7501
TL7502
QGF0508F1-24X
CN7603
TO LCD MODULE
VGL
VSS
STV1
UD
CPV
OEV
STV2
VDD
VGH
VCOM
VEE
STH2
RL
VB
R
G
B
SIG_GND
CLK3
CLK2
CLK1
Q2H
OEH
STH1
C7501 12p
T7501 NQS0056-001X
C7502 0.027
Q7501 2SD1664/QR/-W
Q7502 2SD1664/QR/-W
L7501 68μ
R7502 1k
R7503 1k
R7501 1k
Q7503 DTA144EE-X
C7503 0.01
C7504 10
R7504 ※
L7502 NQL03BK-100X
Q7504 DTC144EE-X
F7501 NMFZ007-R40X-K
C7511 ※
R7511 0Ω
IC7501 ※
R7513 0Ω
R7512 0Ω
0 3 BL-2.5
QGF0507F3-16X
CN7601
TO MONITOR
VGL
VSS
STV2
UD
CPV
OEV
STV1
LCD_VDD
VGH
LCD_COM
LCD_VEE
STH2
LCD_RVS
VB
MON_R
MON_G
QGF0507F3-16X
CN7602
TO MONITOR
BL_4.8V
BL_4.8V
LCD_CTL
BL_GND
BL_GND
A_REG3V
M_RVS
MON_B
GND
GND
CLK3
CLK2
CLK1
Q2H
OEH
STH1
TL7503 OUT
TL7504 VCC
TL7505 GND
TO IC7604
NOTE: The parts with marked (※) is not used.
y30214001a_rev0.1
5
4
3
2
1
A
B
C
D

■ CCD SCHEMATIC DIAGRAM

NOTES : ● *IC5001 is incorporated in the CCD base assembly.*
When IC 5001 needs replacement, replace the CCD base assembly in whole because it cannot be replaced alone.

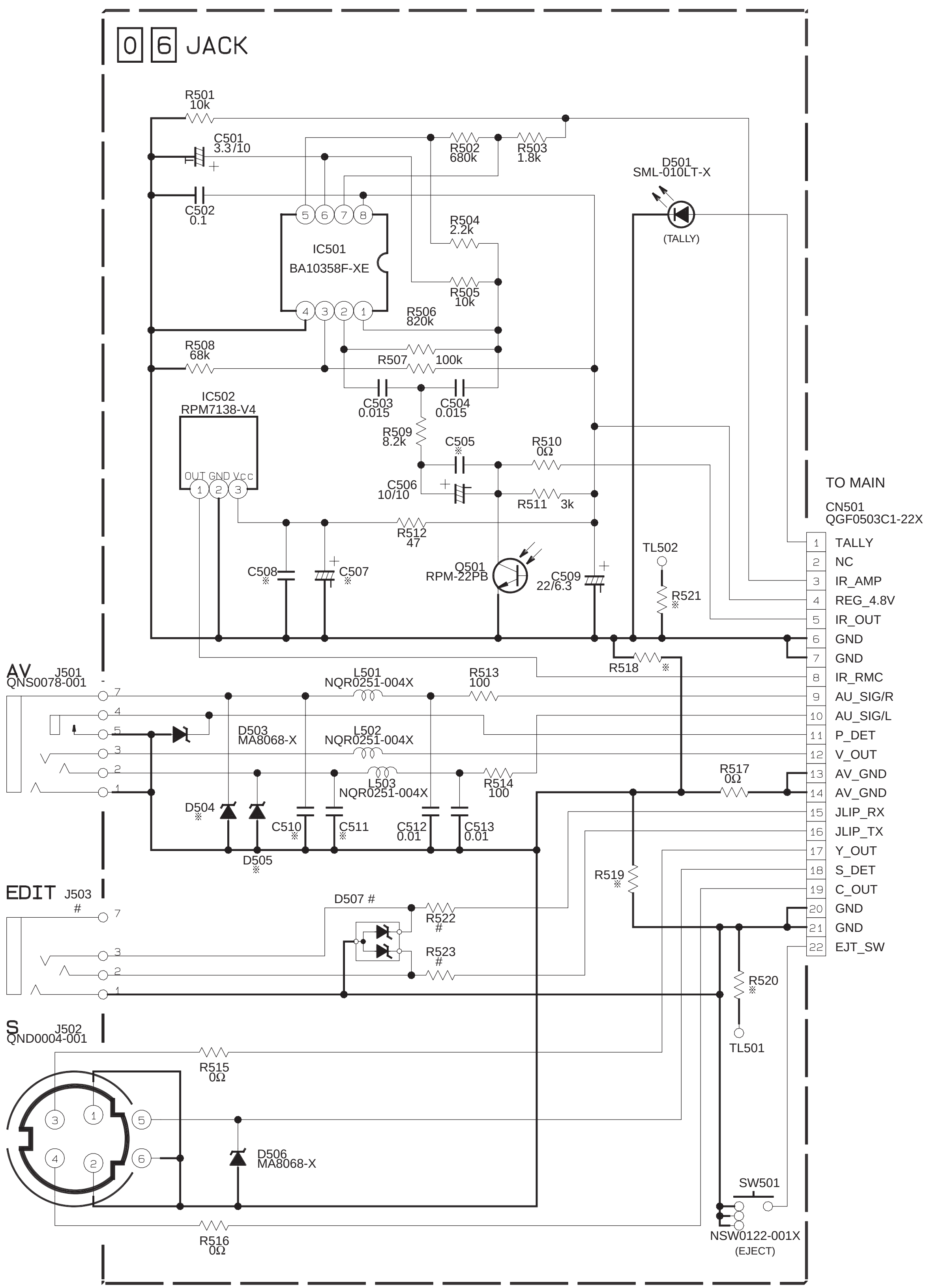

Q5001
2SC3931/CD/-X
R5001
4.7K
C5001
4.7 /20
L5001
10μ
C5002
0.1
IC5001
VOUT
GND
GND
V1
V2
V3
V4
VDD
RG
SUB
VL
H1
H2
TEST
Q5002
#
R5005
#
C5006
0.1
C5005 0.1
R5004 ※
R5003 ※
C5003
10/10
L5002
10μ
C5007
2200p
C5004
0.1
R5002
100K
TO MAIN
CN5001
1 V1
2 V2
3 V3
4 V4
5 CCD_CTL
6 CCD_15V
7 CCD_15V
8 GND
9 GND
10 GND
11 CCD_OUT
12 GND
13 GND
14 GND
15 GND
16 RG
17 H1
18 H2
19 CCD_-7.5V
20 SUB
0 4 CCD

	Q5002	R5005
DSC MODEL	2SC4081/QR/-X	4.7K
NON DSC MODEL	※	※

NOTE: The parts with marked (※) is not used.

y40106001a_rev0.1

■ JACK SCHEMATIC DIAGRAM



06 JACK
R501 10k
C501 3.3/10
C502 0.1
R502 680k
R503 1.8k
D501 SML-010LT-X
(TALLY)
IC501 BA10358F-XE
R504 2.2k
R505 10k
R506 820k
R508 68k
R507 100k
C503 0.015
C504 0.015
IC502 RPM7138-V4
OUT GND Vcc
R509 8.2k
C505 ※
R510 0Ω
C506 10/10
R511 3k
R512 47
C508 ※
C507 ※
Q501 RPM-22PB
C509 22/6.3
TL502
R521 ※
R518 ※
TO MAIN
CN501 QGF0503C1-22X
1 TALLY
2 NC
3 IR_AMP
4 REG_4.8V
5 IR_OUT
6 GND
7 GND
8 IR_RMC
9 AU_SIG/R
10 AU_SIG/L
11 P_DET
12 V_OUT
13 AV_GND
14 AV_GND
15 JLIP_RX
16 JLIP_TX
17 Y_OUT
18 S_DET
19 C_OUT
20 GND
21 GND
22 EJT_SW
AV J501 QNS0078-001
L501 NQR0251-004X
R513 100
D503 MA8068-X
L502 NQR0251-004X
L503 NQR0251-004X
R514 100
R517 0Ω
D504 ※
C510 ※
C511 ※
C512 0.01
C513 0.01
D505 ※
R519 ※
EDIT J503 #
D507 #
R522 #
R523 #
R520 ※
TL501
S J502 QND0004-001
R515 0Ω
D506 MA8068-X
SW501
NSW0122-001X (EJECT)
R516 0Ω

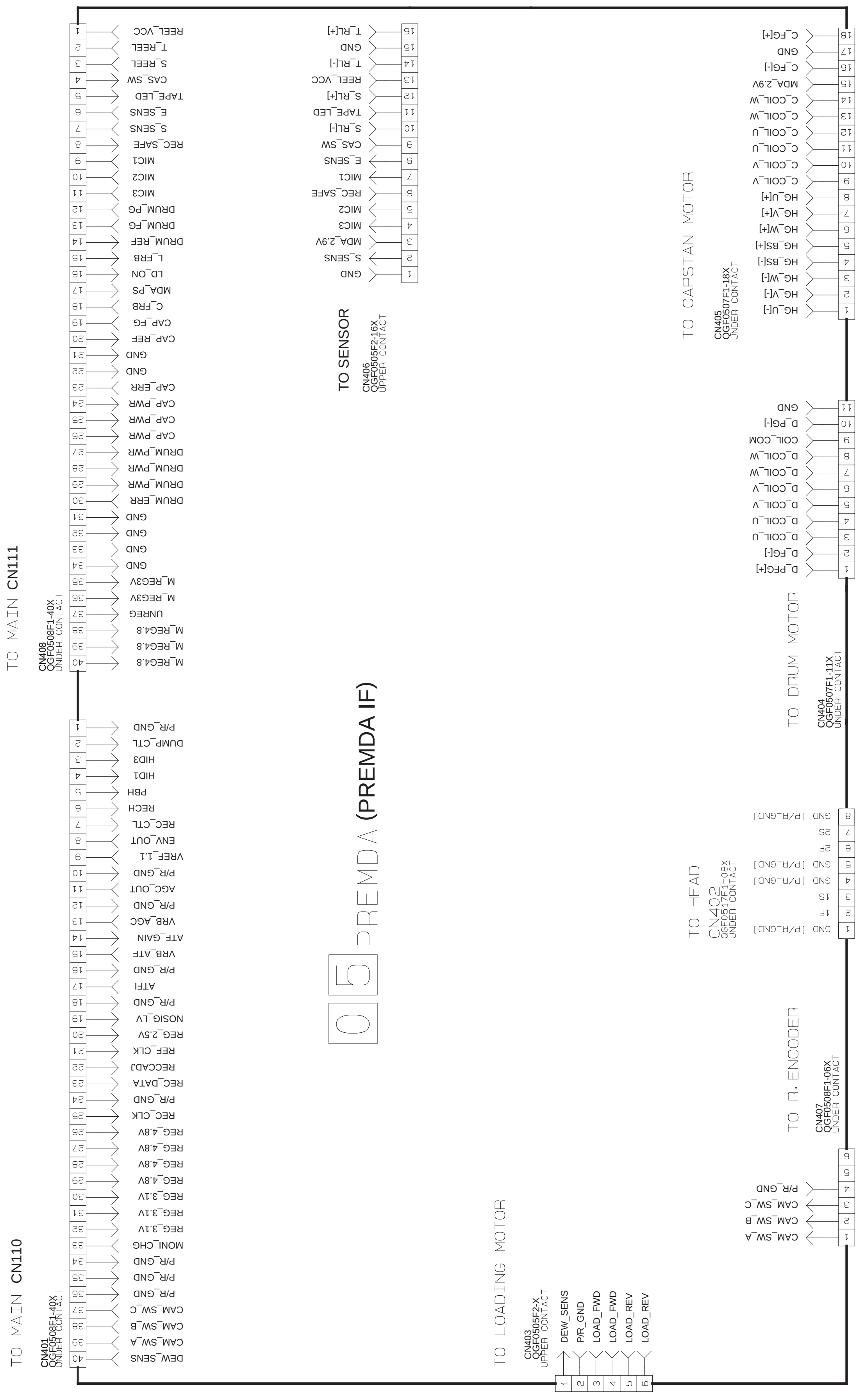
EXCHANGE PARTS LIST

	J503	R522	R523	D507
ON EDIT	PEMC1203 or QNS0147-001	220	330	EMZ6.8N-X
NO EDIT	*	*	*	*

NOTE: The parts with marked (※) is not used.

y40103001a_rev0.1

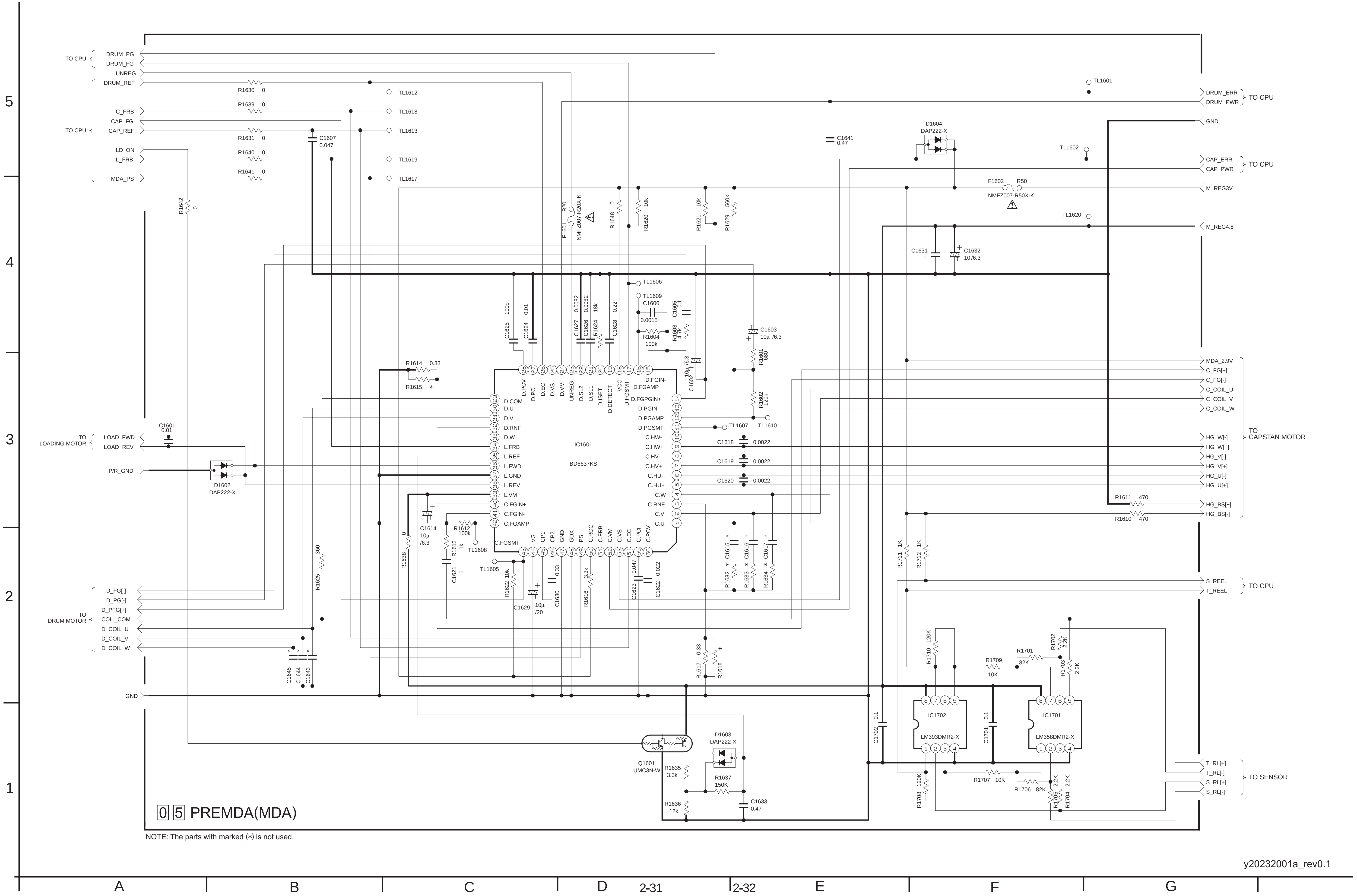
■ PREMDA IF SCHEMATIC DIAGRAM



05 PREMDA (PREMDA IF)
TO MAIN CN111
CN408 QGF0508F1-40X UNDER CONTACT
REEL_VCC
T_REEL
S_REEL
CAS_SW
TAPE_LED
E_SENS
S_SENS
REC_SAFE
MIC1
MIC2
MIC3
DRUM_PG
DRUM_FG
DRUM_REF
L_FRB
LD_ON
MDA_PS
C_FRB
CAP_FG
CAP_REF
GND
CAP_ERR
CAP_PWR
DRUM_PWR
DRUM_ERR
M_REG3V
UNREG
M_REG4.8
TO SENSOR
CN406 QGF0505F2-16X UPPER CONTACT
T_RL[+]
T_RL[-]
S_RL[+]
S_RL[-]
MDA_2.9V
TO CAPSTAN MOTOR
CN405 QGF0507F1-18X UNDER CONTACT
C_FG[+]
C_FG[-]
C_COIL_W
C_COIL_U
C_COIL_V
HG_U[+]
HG_V[+]
HG_W[+]
HG_BS[+]
HG_BS[-]
HG_W[-]
HG_V[-]
HG_U[-]
TO DRUM MOTOR
CN404 QGF0507F1-11X UNDER CONTACT
D_PG[-]
COIL_COM
D_COIL_W
D_COIL_V
D_COIL_U
D_FG[-]
D_PFG[+]
TO HEAD
CN402 QGF0517F1-08X UNDER CONTACT
GND [P/R_GND]
2S
2F
1S
1F
TO R. ENCODER
CN407 QGF0508F1-06X UNDER CONTACT
P/R_GND
CAM_SW_C
CAM_SW_B
CAM_SW_A
TO MAIN CN110
CN401 QGF0508F1-40X UNDER CONTACT
P/R_GND
DUMP_CTL
HID3
HID1
PBH
RECH
REC_CTL
ENV_OUT
VREF_1.1
AGC_OUT
VRB_AGC
ATF_GAIN
VRB_ATF
ATFI
NOSIG_LV
REG_2.5V
REF_CLK
RECCAD3
REC_DATA
REC_CLK
REG_4.8V
REG_3.1V
MONI_CHG
DEW_SENS
TO LOADING MOTOR
CN403 QGF0505F2-X UPPER CONTACT
DEW_SENS
P/R_GND
LOAD_FWD
LOAD_REV

y30236001a_rev0.1

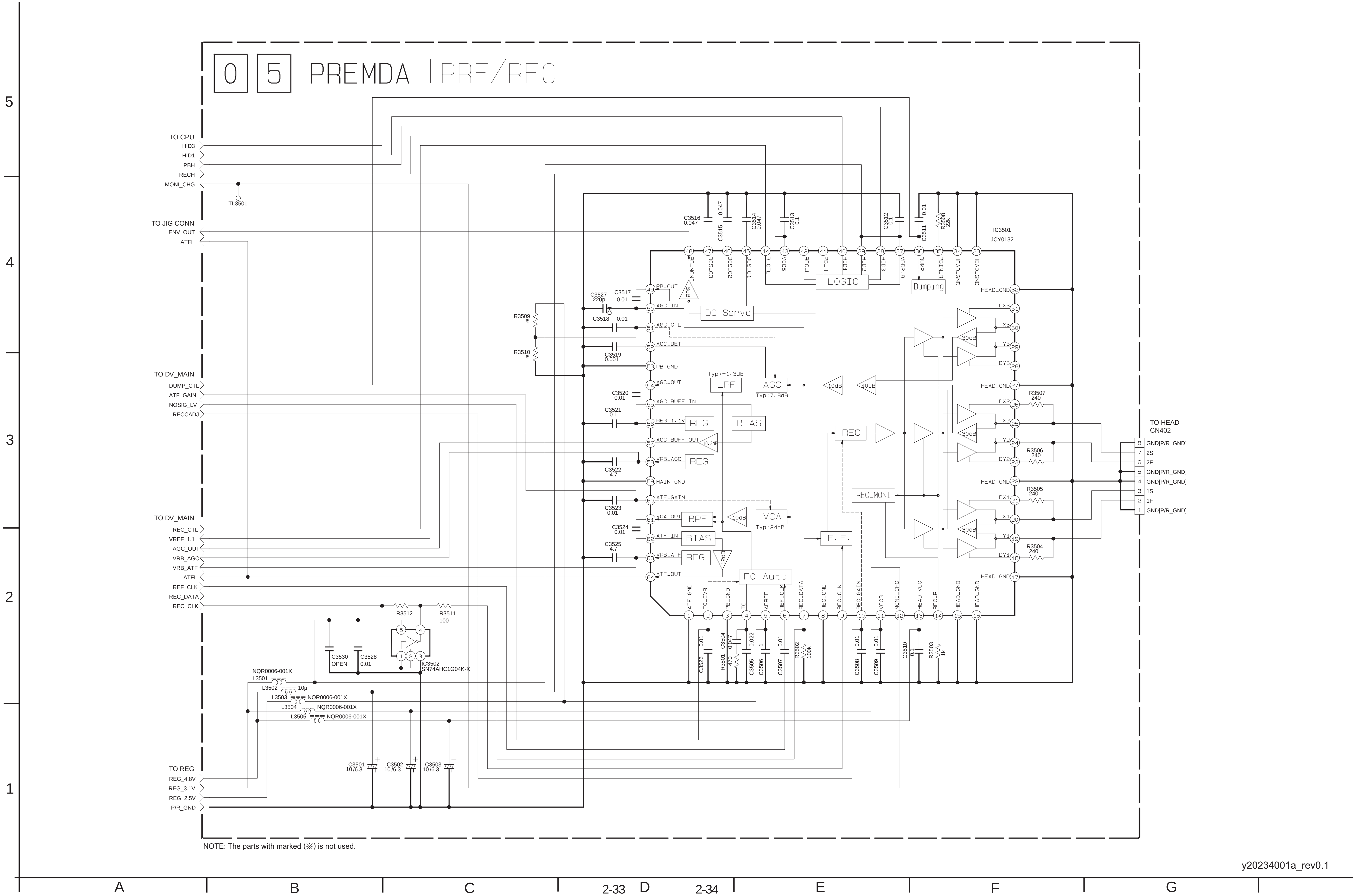
■ MDA SCHEMATIC DIAGRAM



TO CPU
DRUM_PG
DRUM_FG
UNREG
DRUM_REF
C_FRB
CAP_FG
CAP_REF
LD_ON
L_FRB
MDA_PS
R1630 0
R1639 0
R1631 0
R1640 0
R1641 0
C1607 0.047
TL1612
TL1618
TL1613
TL1619
TL1617
R1642 0
F1601 R20 NMFZ007-R20X-K
R1648 0
R1620 10k
R1621 10k
R1629 560k
TL1601
DRUM_ERR
DRUM_PWR
GND
C1641 0.47
D1604 DAP222-X
TL1602
CAP_ERR
CAP_PWR
F1602 R50 NMFZ007-R50X-K
M_REG3V
TL1620
M_REG4.8
C1631 *
C1632 10/6.3
TL1606
TL1609
C1606 0.0015
R1604 100k
C1605 0.1
R1603 4.7k
C1603 10µ /6.3
R1601 680
R1602 120k
C1602 10µ /6.3
C1625 100p
C1624 0.01
C1627 0.0082
C1626 0.0082
R1624 18k
C1628 0.22
R1614 0.33
R1615 *
IC1601
BD6637KS
D.PCV
D.PCI
D.EC
D.VS
D.VM
UNREG
D.SL2
D.SL1
D.ISET
D.DETECT
VCC
D.FGSMT
D.FGIN-
D.FGAMP
D.FGPGIN+
D.PGIN-
D.PGAMP
D.PGSMT
C.HW-
C.HW+
C.HV-
C.HV+
C.HU-
C.HU+
C.W
C.RNF
C.V
C.U
D.COM
D.U
D.V
D.RNF
D.W
L.FRB
L.REF
L.FWD
L.GND
L.REV
L.VM
C.FGIN+
C.FGIN-
C.FGAMP
C.FGSMT
VG
CP1
CP2
GND
GDX
PS
C.RCC
C.FRB
C.VM
C.VS
C.EC
C.PCI
C.PCV
TL1607
TL1610
C1618 0.0022
C1619 0.0022
C1620 0.0022
MDA_2.9V
C_FG[+]
C_FG[-]
C_COIL_U
C_COIL_V
C_COIL_W
HG_W[-]
HG_W[+]
HG_V[-]
HG_V[+]
HG_U[-]
HG_U[+]
HG_BS[+]
HG_BS[-]
TO CAPSTAN MOTOR
R1611 470
R1610 470
TO LOADING MOTOR
LOAD_FWD
LOAD_REV
C1601 0.01
P/R_GND
D1602 DAP222-X
C1614 10µ /6.3
R1612 100k
R1613 1k
TL1608
C1621 1
R1638 0
TL1605
R1622 10k
C1629 10µ /20
C1630 0.33
R1616 3.3k
C1623 0.047
C1622 0.022
C1615 *
C1616 *
C1617 *
R1632 *
R1633 *
R1634 *
R1711 1K
R1712 1K
S_REEL
T_REEL
TO CPU
TO DRUM MOTOR
D_FG[-]
D_PG[-]
D_PFG[+]
COIL_COM
D_COIL_U
D_COIL_V
D_COIL_W
R1625 360
C1645 *
C1644 *
C1643 *
GND
R1617 0.33
R1618 *
R1710 120K
R1709 10K
R1701 82K
R1702 2.2K
R1703 2.2K
IC1702 LM393DMR2-X
IC1701 LM358DMR2-X
C1702 0.1
C1701 0.1
Q1601 UMC3N-W
D1603 DAP222-X
R1635 3.3k
R1637 150K
R1636 12k
C1633 0.47
R1708 120K
R1707 10K
R1706 82K
R1705 2.2K
R1704 2.2K
T_RL[+]
T_RL[-]
S_RL[+]
S_RL[-]
TO SENSOR
05 PREMDA(MDA)
1
2
3
4
5
A
B
C
D
E
F
G

NOTE: The parts with marked (*) is not used.

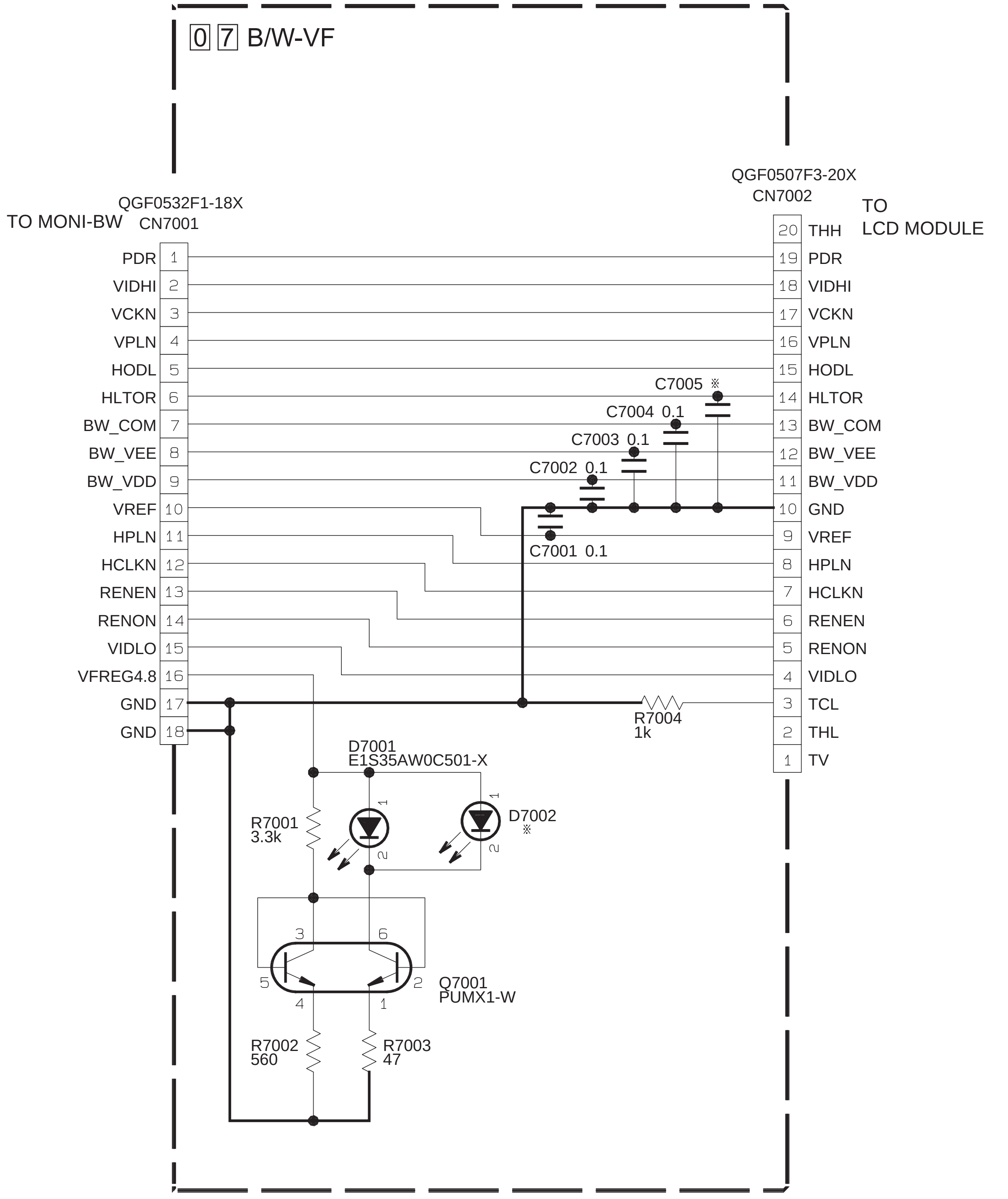
■ PRE/REC SCHEMATIC DIAGRAM


05 PREMDA [PRE/REC]
TO CPU
HID3
HID1
PBH
RECH
MONI_CHG
TL3501
TO JIG CONN
ENV_OUT
ATFI
TO DV_MAIN
DUMP_CTL
ATF_GAIN
NOSIG_LV
RECCADJ
TO DV_MAIN
REC_CTL
VREF_1.1
AGC_OUT
VRB_AGC
VRB_ATF
ATFI
REF_CLK
REC_DATA
REC_CLK
TO REG
REG_4.8V
REG_3.1V
REG_2.5V
P/R_GND
IC3501
JCY0132
IC3502
SN74AHC1G04K-X
LOGIC
DC Servo
Dumping
LPF
AGC
Typ:-1.3dB
Typ:7.8dB
REG
BIAS
BPF
VCA
Typ:24dB
F0 Auto
REC
REC_MONI
F.F.
10dB
30dB
12dB
6dB
10.3dB
C3516 0.047
C3515 0.047
C3514 0.047
C3513 0.1
C3512 0.1
C3511 0.01
R3508 22k
C3527 220p CH
C3517 0.01
C3518 0.01
C3519 0.001
C3520 0.01
C3521 0.1
C3522 4.7
C3523 0.01
C3524 0.01
C3525 4.7
R3509 ※
R3510 ※
C3526 0.01
R3501 470
C3504 0.047
C3505 0.022
C3506 1
C3507 0.01
R3502 100k
C3508 0.01
C3509 0.01
C3510 0.1
R3503 1k
R3507 240
R3506 240
R3505 240
R3504 240
R3512
R3511 100
C3530 OPEN
C3528 0.01
NQR0006-001X
L3501
L3502 10µ
L3503 NQR0006-001X
L3504 NQR0006-001X
L3505 NQR0006-001X
C3501 10/6.3
C3502 10/6.3
C3503 10/6.3
TO HEAD
CN402
8 GND[P/R_GND]
7 2S
6 2F
5 GND[P/R_GND]
4 GND[P/R_GND]
3 1S
2 1F
1 GND[P/R_GND]
ATF_GND
F0_EVR
PB_GND
TC
ADREF
REF_CLK
REC_DATA
REC_GND
REC_CLK
REC_GAIN
VCC3
MONI_CHG
HEAD_VCC
REC_R
HEAD_GND
PB_MONI
DCS_C3
DCS_C2
DCS_C1
R_CTL
VCC5
REC_H
PB_H
HID1
HID2
HID3
VDD2.8
DUMP_
PBIN_R
PB_OUT
AGC_IN
AGC_CTL
AGC_DET
AGC_OUT
AGC_BUFF_IN
REG_1.1V
AGC_BUFF_OUT
VRB_AGC
MAIN_GND
ATF_GAIN
VCA_OUT
ATF_IN
VRB_ATF
ATF_OUT
DX3
X3
Y3
DY3
DX2
X2
Y2
DY2
DX1
X1
Y1
DY1
1
2
3
4
5
A
B
C
D
E
F
G

NOTE: The parts with marked (※) is not used.

y20234001a_rev0.1

■ B/W-VF SCHEMATIC DIAGRAM

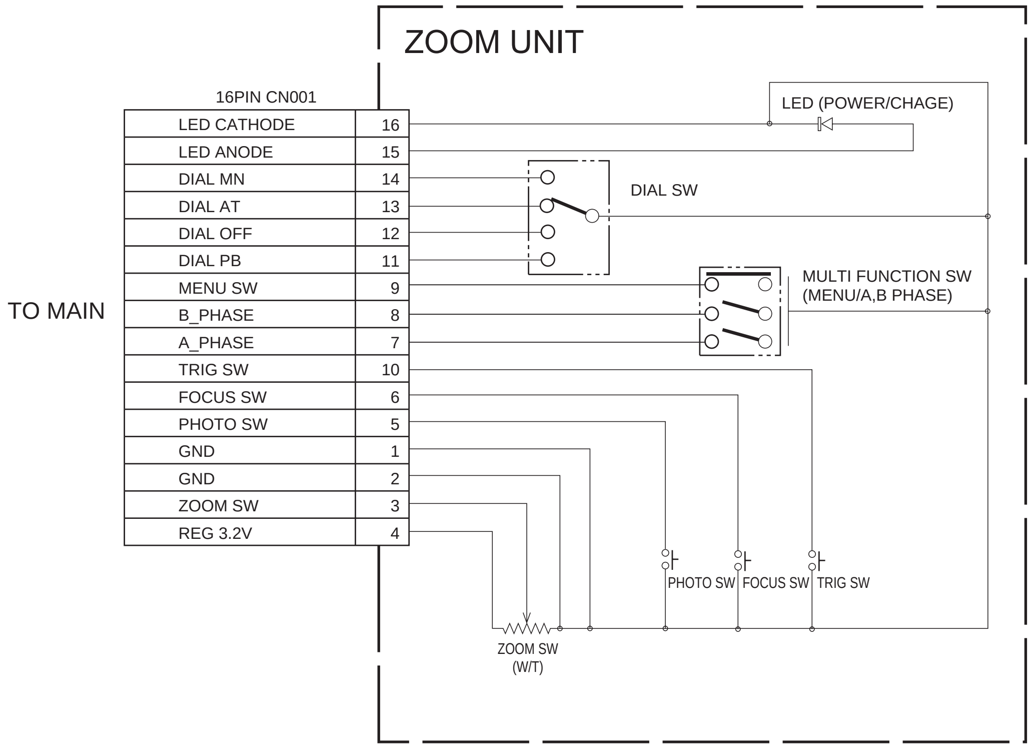

0 7 B/W-VF
TO MONI-BW
QGF0532F1-18X
CN7001
PDR 1
VIDHI 2
VCKN 3
VPLN 4
HODL 5
HLTOR 6
BW_COM 7
BW_VEE 8
BW_VDD 9
VREF 10
HPLN 11
HCLKN 12
RENEN 13
RENON 14
VIDLO 15
VFREG4.8 16
GND 17
GND 18
QGF0507F3-20X
CN7002
TO
LCD MODULE
20 THH
19 PDR
18 VIDHI
17 VCKN
16 VPLN
15 HODL
14 HLTOR
13 BW_COM
12 BW_VEE
11 BW_VDD
10 GND
9 VREF
8 HPLN
7 HCLKN
6 RENEN
5 RENON
4 VIDLO
3 TCL
2 THL
1 TV
C7005 ※
C7004 0.1
C7003 0.1
C7002 0.1
C7001 0.1
R7004
1k
D7001
E1S35AW0C501-X
R7001
3.3k
D7002
※
Q7001
PUMX1-W
R7002
560
R7003
47

NOTE: The parts with marked (※) is not used.

y40104001a_rev0.1

■ ZOOM UNIT SCHEMATIC DIAGRAM

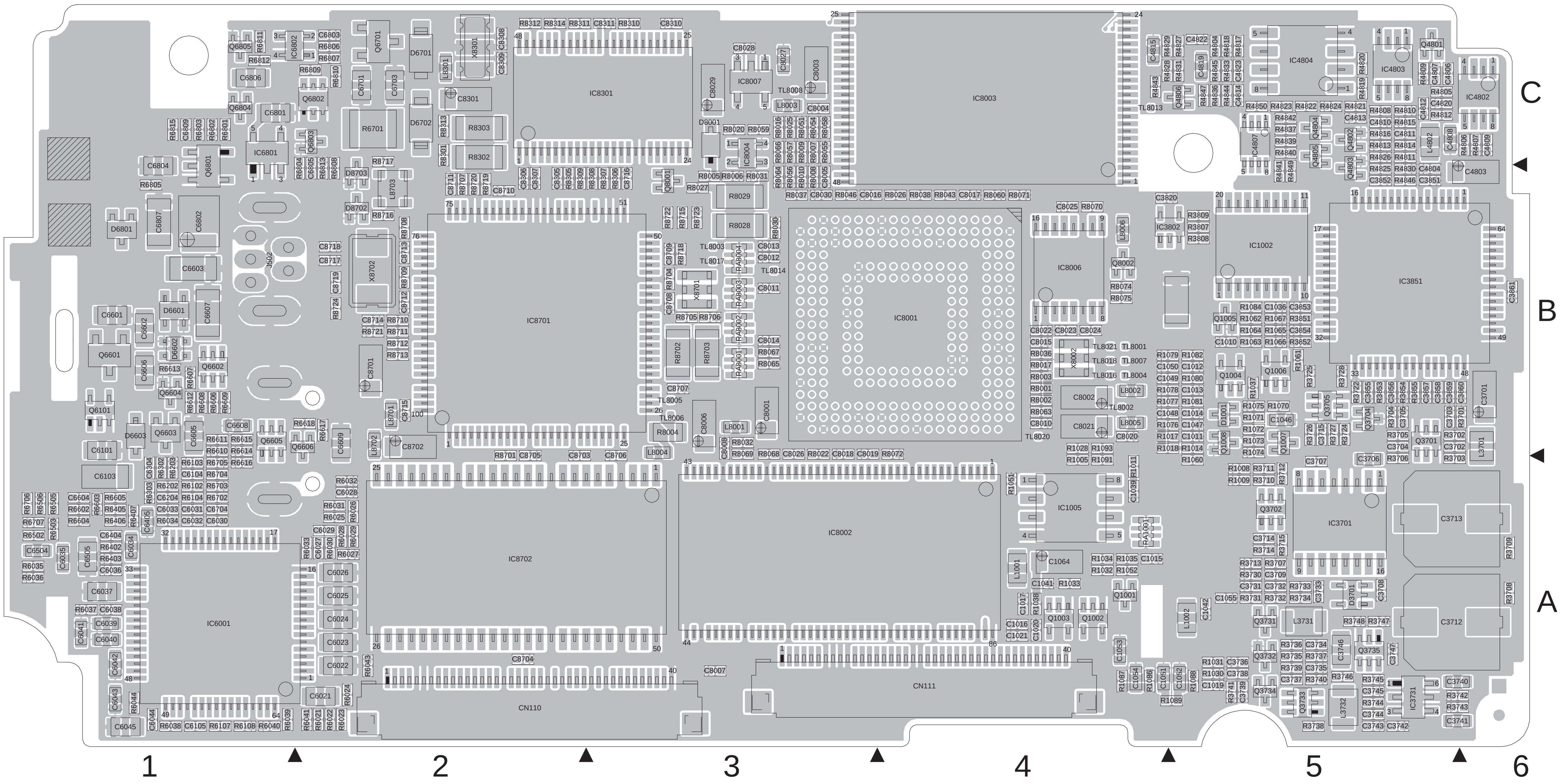
NOTES : ● The schematic diagram is only for reference. Avoid replacing individual parts. Replace the entire unit only.


ZOOM UNIT
TO MAIN
16PIN CN001
LED CATHODE 16
LED ANODE 15
DIAL MN 14
DIAL AT 13
DIAL OFF 12
DIAL PB 11
MENU SW 9
B_PHASE 8
A_PHASE 7
TRIG SW 10
FOCUS SW 6
PHOTO SW 5
GND 1
GND 2
ZOOM SW 3
REG 3.2V 4
LED (POWER/CHAGE)
DIAL SW
MULTI FUNCTION SW
(MENU/A,B PHASE)
PHOTO SW
FOCUS SW
TRIG SW
ZOOM SW
(W/T)

■ MAIN CIRCUIT BOARD

<01> MAIN
YB 10404-01-01

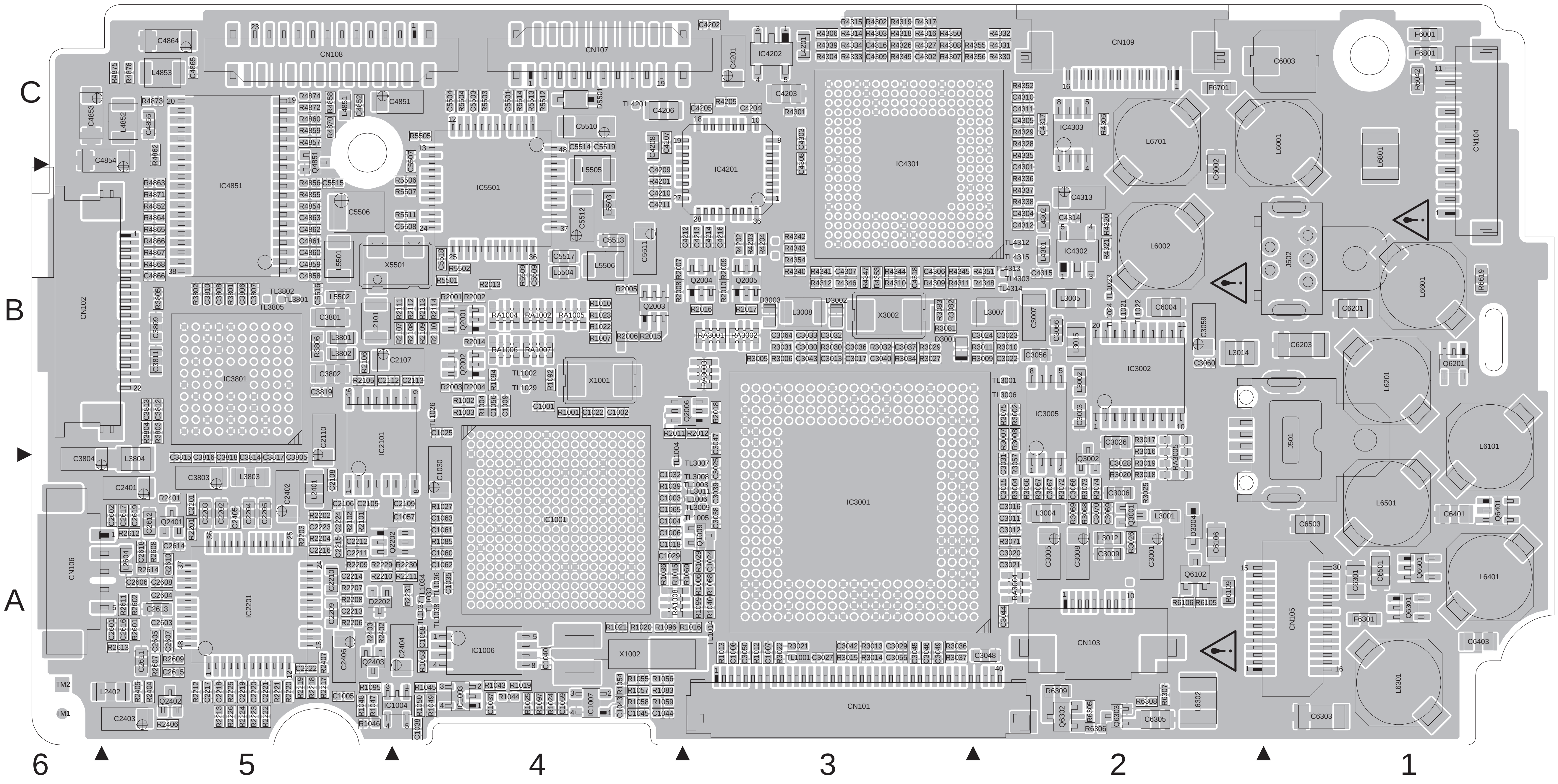
FOIL SIDE(B)


IC8301
IC8003
IC4804
IC4803
IC4802
IC6801
IC8701
IC8001
IC8006
IC1002
IC3851
IC8702
IC8002
IC1005
IC3701
IC6001
IC3731
IC8007
CN110
CN111
X8301
X8701
X8702
X8002
C3713
C3712
C
B
A
1
2
3
4
5
6

■ MAIN CIRCUIT BOARD

<01> MAIN
YB 10404-01-01

COMPONENT SIDE(A)


C
B
A
6
5
4
3
2
1
CN108
CN107
CN109
CN104
CN102
CN106
CN101
CN103
CN105
IC4851
IC5501
IC4201
IC4301
IC3801
IC2101
IC1001
IC3001
IC3002
IC2201
IC1006
X5501
X1001
X1002
X3002
J501
J502
L6701
L6001
L6002
L6601
L6201
L6101
L6501
L6401
L6301

COMPONENT PARTS LOCATION GUIDE <MAIN> YB 10404-01-01

REF.NO.	LOCATION
CAPACITOR	
C1001	A C 4B
C1002	A C 4B
C1003	A C 4A
C1004	A C 4A
C1005	A C 5A
C1006	A C 4A
C1007	A C 3A
C1008	A C 3A
C1009	A C 4B
C1010	B C 5B
C1011	B C 5B
C1012	B C 5B
C1013	B C 5B
C1014	B C 5B
C1015	B C 4A
C1016	B C 4A
C1017	B C 4A
C1018	A C 4A
C1019	B C 5A
C1020	B C 4A
C1021	B C 4A
C1022	A C 4B
C1024	A C 3A
C1025	A C 4B
C1029	A C 4A
C1030	A C 4A
C1032	A C 4A
C1035	A C 4A
C1036	B C 5B
C1037	A C 4A
C1038	A C 4A
C1039	B C 4A
C1040	A C 4A
C1041	B C 4A
C1042	B C 5A
C1043	A C 4A
C1044	A C 4A
C1045	A C 4A
C1046	B C 5B
C1047	B C 5B
C1048	B C 5B
C1049	B C 5B
C1050	B C 5B
C1051	B C 4A
C1052	B C 5A
C1053	B C 4A
C1054	B C 4A
C1055	B C 5A
C1056	A C 4B
C1057	A C 4A
C1058	A C 4A
C1059	A C 4A
C1060	A C 4A
C1061	A C 4A
C1062	A C 4A
C1063	A C 4A
C1064	B C 4A
C1065	A C 4A
C2105	A C 5A
C2106	A C 5A
C2107	A C 4B
C2108	A C 5A
C2109	A C 4A
C2110	A C 5B
C2112	A C 5B
C2113	A C 4B
C2201	A C 5A
C2202	A C 5A
C2203	A C 5A
C2204	A C 5A
C2205	A C 5A
C2209	A C 5A
C2210	A C 5A
C2211	A C 5A
C2212	A C 5A
C2213	A C 5A
C2214	A C 5A
C2215	A C 5A
C2216	A C 5A
C2217	A C 5A
C2218	A C 5A
C2219	A C 5A
C2220	A C 5A
C2221	A C 5A
C2222	A C 5A
C2223	A C 5A
C2224	A C 5A
C2401	A C 5A
C2402	A C 5A
C2403	A C 5A
C2404	A C 4A
C2405	A C 5A
C2406	A C 5A
C2601	A C 5A
C2602	A C 5A
C2603	A C 5A
C2604	A C 5A
C2605	A C 5A
C2606	A C 5A
C2607	A C 5A
C2608	A C 5A
C2611	A C 5A
C2612	A C 5A
C2613	A C 5A
C2614	A C 5A
C2615	A C 5A
C2616	A C 5A
C2617	A C 5A
C2618	A C 5A
C2619	A C 5A
C3001	A C 2A
C3003	A C 2B
C3005	A C 2A
C3006	A C 2A
C3007	A C 2B
C3008	A C 2A
C3009	A C 2A
C3011	A C 2A
C3012	A C 2A
C3013	A C 3B
C3015	A C 2A
C3016	A C 2A
C3017	A C 3B
C3020	A C 2A
C3021	A C 2A
C3022	A C 2B
C3023	A C 2B
C3024	A C 2B
C3025	A C 3A
C3026	A C 2B
C3027	A C 3A
C3028	A C 2A
C3029	A C 3A
C3030	A C 3B
C3031	A C 2A
C3032	A C 3B
C3033	A C 3B
C3036	A C 3B
C3037	A C 3B
C3038	A C 3A
C3039	A C 3A
C3040	A C 3B
C3042	A C 3A
C3043	A C 3B
C3044	A C 2A
C3045	A C 3A
C3046	A C 3A
C3047	A C 3B
C3048	A C 2A
C3049	A C 3A
C3050	A C 3A
C3055	A C 3A
C3056	A C 2B
C3059	A C 2B
C3060	A C 2B
C3064	A C 3B
C3066	A C 2B
C3067	A C 2A
C3068	A C 2A
C3069	A C 2A
C3070	A C 2A
C3701	B C 6B
C3702	B C 5B
C3703	B C 5B
C3704	B C 5B
C3705	B C 5B
C3706	B C 5A
C3707	B C 5A
C3708	B C 5A
C3709	B C 5A
C3712	B C 5A
C3713	B C 5A
C3714	B C 5A
C3715	B C 5B
C3731	B C 5A
C3732	B C 5A
C3733	B C 5A
C3734	B C 5A
C3735	B C 5A
C3736	B C 5A
C3737	B C 5A
C3738	B C 5A
C3739	B C 5A
C3740	B C 6A
C3741	B C 6A
C3742	B C 5A
C3743	B C 5A
C3744	B C 5A
C3745	B C 5A
C3746	B C 5A
C3747	B C 5A
C3801	A C 5B
C3802	A C 5B
C3803	A C 5A
C3804	A C 6A
C3805	A C 5A
C3806	A C 5B
C3807	A C 5B
C3808	A C 5B
C3809	A C 5B
C3810	A C 5B
C3811	A C 5B
C3812	A C 5B
C3813	A C 5B
C3814	A C 5A
C3815	A C 5A
C3816	A C 5A
C3817	A C 5A
C3818	A C 5A
C3819	A C 5B
C3820	B C 5B
C3851	B C 5B
C3852	B C 5B
C3853	B C 5B
C3854	B C 5B
C3855	B C 5B
C3856	B C 5B
C3857	B C 5B
C3858	B C 5B
C3859	B C 5B
C3860	B C 6B
C3861	B C 6B
C4201	A C 3C
C4202	A C 3C
C4203	A C 3C
C4204	A C 3C
C4205	A C 3C
C4206	A C 4C
C4207	A C 4C
C4208	A C 4C
C4209	A C 4B
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C4314	A C 2B
C4315	A C 2B
C4316	A C 3C
C4317	A C 2C
C4318	A C 3B
C4803	B C 6B
C4804	B C 5B
C4806	B C 5C
C4807	B C 5C
C4808	B C 5C
C4809	B C 6C
C4810	B C 5C
C4811	B C 5C
C4812	B C 5C
C4813	B C 5C
C4814	B C 5C
C4815	B C 4C
C4819	B C 5C
C4820	B C 5C
C4822	B C 5C
C4823	B C 5C
C4851	A C 4C
C4852	A C 5C
C4853	A C 6C
C4854	A C 5C
C4855	A C 5C
C4858	A C 5B
C4859	A C 5B
C4860	A C 5B
C4861	A C 5B
C4862	A C 5B
C4863	A C 5B
C4864	A C 5C
C4865	A C 5C
C4866	A C 5B
C5501	A C 4C
C5503	A C 4C
C5504	A C 4C
C5506	A C 5B
C5507	A C 4C
C5508	A C 4B
C5509	A C 4B
C5510	A C 4C
C5511	A C 4B
C5512	A C 4B
C5513	A C 4B
C5514	A C 4C
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C5516	A C 5B
C5517	A C 4B
C5518	A C 4B
C5519	A C 4C
C6002	A C 2B
C6003	A C 1C
C6004	A C 2B
C6021	B C 2A
C6022	B C 2A
C6023	B C 2A
C6024	B C 2A
C6025	B C 2A
C6026	B C 2A
C6027	B C 2A
C6028	B C 2A
C6029	B C 2A
C6030	B C 1A
C6031	B C 1A
C6032	B C 1A
C6033	B C 1A
C6034	B C 1A
C6035	B C 1A
C6036	B C 1A
C6037	B C 1A
C6038	B C 1A
C6039	B C 1A
C6040	B C 1A
C6041	B C 1A
C6042	B C 1A
C6043	B C 1A
C6044	B C 1A
C6045	B C 1A
C6101	B C 1B
C6103	B C 1A
C6104	B C 1A
C6105	B C 1A
C6106	A C 2A
C6201	A C 1B
C6203	A C 1B
C6204	B C 1A
C6301	A C 1A
C6303	A C 1A
C6304	B C 1A
C6305	A C 2A
C6401	A C 1A
C6403	A C 1A
C6404	B C 1A
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C6503	A C 1A
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C6602	B C 1B
C6603	B C 1B
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C6605	B C 1B
C6606	B C 1B
C6607	B C 1B
C6608	B C 1B
C6609	B C 2B
C6701	B C 2C
C6703	B C 2C
C6704	B C 1A
C6801	B C 1C
C6802	B C 1B
C6803	B C 2C
C6804	B C 1B
C6805	B C 2B
C6806	B C 1C
C6807	B C 1B
C6809	B C 1C
C8001	B C 3B
C8002	B C 4B
C8003	B C 3C
C8004	B C 3C
C8005	B C 3B
C8006	B C 3B
C8007	B C 3A
C8008	B C 3B
C8010	B C 4B
C8011	B C 3B
C8012	B C 3B
C8013	B C 3B
C8014	B C 3B
C8015	B C 4B
C8016	B C 3B
C8017	B C 4B
C8018	B C 3B
C8019	B C 3B
C8020	B C 4B
C8021	B C 4B
C8022	B C 4B
C8023	B C 4B
C8024	B C 4B
C8025	B C 4B
C8026	B C 3B
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C8028	B C 3C
C8029	B C 3C
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C8301	B C 2C
C8305	B C 2B
C8306	B C 2B
C8307	B C 2B
C8308	B C 2C
C8309	B C 2C
C8310	B C 3C
C8311	B C 3C
C8701	B C 2B
C8702	B C 2B
C8703	B C 2B
C8704	B C 2A
C8705	B C 2B
C8706	B C 3B
C8707	B C 3B
C8708	B C 3B
C8709	B C 3B
C8710	B C 2B
C8711	B C 2B
C8712	B C 2B
C8713	B C 2B
C8714	B C 2B
C8715	B C 2B
C8716	B C 3B
C8717	B C 2B
C8718	B C 2B
C8719	B C 2B
CONNECTOR	
CN101	A C 3A
CN102	A C 5B
CN103	A C 2A
CN104	A C 1C
CN105	A C 2A
CN106	A C 6A
CN107	A C 4C
CN108	A C 5C
CN109	A C 2C
CN110	B C 2A
CN111	B C 4A
DIODE	
D1001	B C 5B
D2202	A C 5A
D3001	A C 3B
D3002	A C 3B
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X8702	B C 2B

COMPONENT PARTS LOCATION GUIDE <PREMDA> YB 10405-01-01

REF.NO.	LOCATION
CAPACITOR	
C1601	A C 1B
C1602	A C 3B
C1603	A C 3B
C1605	A C 3B
C1606	A C 3B
C1607	A C 4B
C1614	A C 3C
C1615	A C 3B
C1616	A C 3B
C1617	A C 3B
C1618	A C 3B
C1619	A C 3B
C1620	A C 3B
C1621	A C 3C
C1622	A C 4B
C1623	A C 4B
C1624	A C 3B
C1625	A C 3B
C1626	A C 3B
C1627	A C 3B
C1628	A C 3B
C1629	A C 4B
C1630	A C 3B
C1631	A C 3A
C1632	A C 3A
C1633	A C 4B
C1641	A C 3A
C1643	A C 3C
C1644	A C 3C
C1645	A C 3C
C1701	A C 3A
C1702	A C 4A
C3501	A C 2B
C3502	A C 2B
C3503	A C 2B
C3504	A C 2B
C3505	A C 2B
C3506	A C 2B
C3507	A C 2B
C3508	A C 2C
C3509	A C 2B
C3510	A C 2B
C3511	A C 2C
C3512	A C 2B
C3513	A C 2B
C3514	A C 2B
C3515	A C 2B
C3516	A C 2B
C3517	A C 2B
C3518	A C 2B
C3519	A C 2B
C3520	A C 2B
C3521	A C 2B
C3522	A C 2B
C3523	A C 2B
C3524	A C 2B
C3525	A C 2B
C3526	A C 2B
C3527	A C 2B
C3528	A C 1B
C3530	A C 1B
CONNECTOR	
CN401	A C 2A
CN402	A C 2C
CN403	A C 1B
CN404	A C 3C
CN405	A C 3C
CN406	A C 3B
CN407	A C 1B
CN408	A C 3A
DIODE	
D1602	A C 1B
D1603	A C 4B
D1604	A C 3A
FUSE	
F1601	A C 3A
F1602	A C 3A
IC	
IC1601	A C 3B
IC1701	A C 3A
IC1702	A C 4A
IC3501	A C 2B
IC3502	A C 1B
COIL	
L3501	A C 2A
L3502	A C 2A
L3503	A C 2A
L3504	A C 2A
L3505	A C 2A
TRANSISTOR	
Q1601	A C 4B
RESISTOR	
R1601	A C 3B
R1602	A C 3B
R1603	A C 3B
R1604	A C 3B
R1610	A C 3C
R1611	A C 4C
R1612	A C 3B
R1613	A C 3B
R1614	A C 3C
R1615	A C 3C
R1616	A C 3B
R1617	A C 3B
R1618	A C 3B
R1620	A C 3B
R1621	A C 3B
R1622	A C 3B
R1624	A C 3B
R1625	A C 3C
R1629	A C 3B
R1630	A C 4B
R1631	A C 4B
R1632	A C 3B
R1633	A C 3B
R1634	A C 3B
R1635	A C 4B
R1636	A C 4B
R1637	A C 4B
R1638	A C 3C
R1639	A C 4B
R1640	A C 4B
R1641	A C 4B
R1642	A C 4B
R1648	A C 3B
R1701	A C 3A
R1702	A C 3A
R1703	A C 4A
R1704	A C 3A
R1705	A C 3A
R1706	A C 3A
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R1708	A C 4A
R1709	A C 4A
R1710	A C 4A
R1711	A C 4A
R1712	A C 4A
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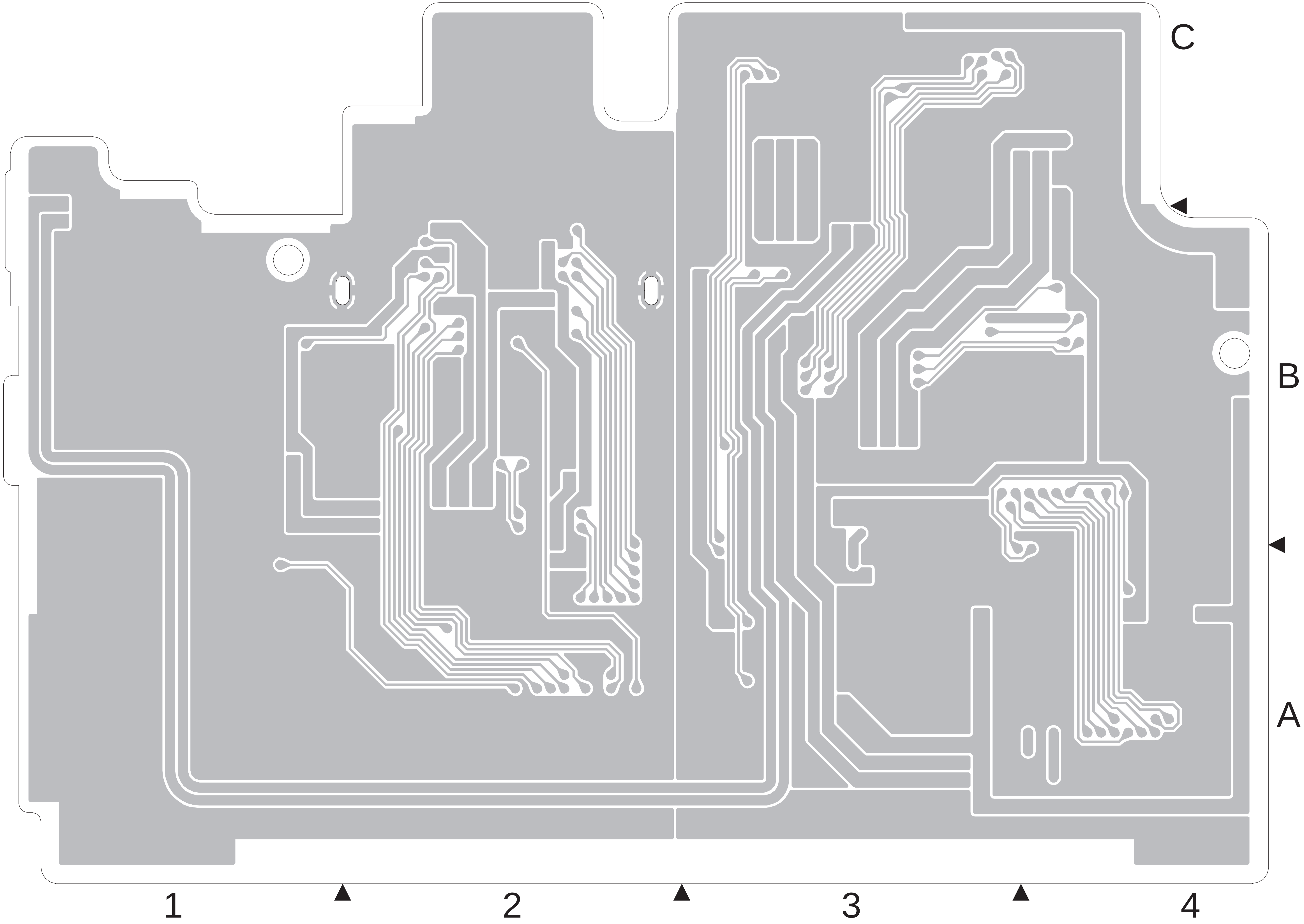
R3502	A C 2B
R3503	A C 2C
R3504	A C 2C
R3505	A C 2C
R3506	A C 2C
R3507	A C 2C
R3508	A C 2C
R3509	A C 2B
R3510	A C 2B
R3511	A C 1B
R3512	A C 1B
OTHER	
TL1601	A C 3A
TL1602	A C 3A
TL1605	A C 3B
TL1606	A C 3A
TL1607	A C 3B
TL1608	A C 3C
TL1609	A C 3B
TL1610	A C 3B
TL1612	A C 4B
TL1613	A C 3B
TL1617	A C 4B
TL1618	A C 4B
TL1619	A C 4B
TL1620	A C 3A
TL3501	A C 2A
TM2	A C 4C
TM4	A C 4C
ZP1-1	A C 2B
ZP3-3	A C 1B
ZP3-5	A C 1B
ZP4-1	A C 3C
ZP4-2	A C 3A
ZP4-3	A C 3C
ZP4-5	A C 3C
ZP4-7	A C 3C
ZP4-9	A C 3C
ZP5-1	A C 3C
ZP5-2	A C 3C
ZP5-3	A C 3C
ZP5-4	A C 3C
ZP5-5	A C 4C
ZP5-6	A C 3C
ZP5-7	A C 3C
ZP5-8	A C 3C
ZP5-9	A C 4C
ZP6-1	A C 4B
ZP6-3	A C 3A
ZP7-4	A C 1B
ZP4-10	A C 3C
ZP4-11	A C 3C
ZP5-11	A C 4C
ZP5-13	A C 4C
ZP5-16	A C 3C
ZP5-17	A C 4C
ZP5-18	A C 4C
ZP6-10	A C 3B
ZP6-12	A C 3B
ZP6-14	A C 4B
ZP6-16	A C 4B
ZP8-21	A C 3A

■ PREMDA CIRCUIT BOARD

<05> PREMDA
YB 10405-01-01

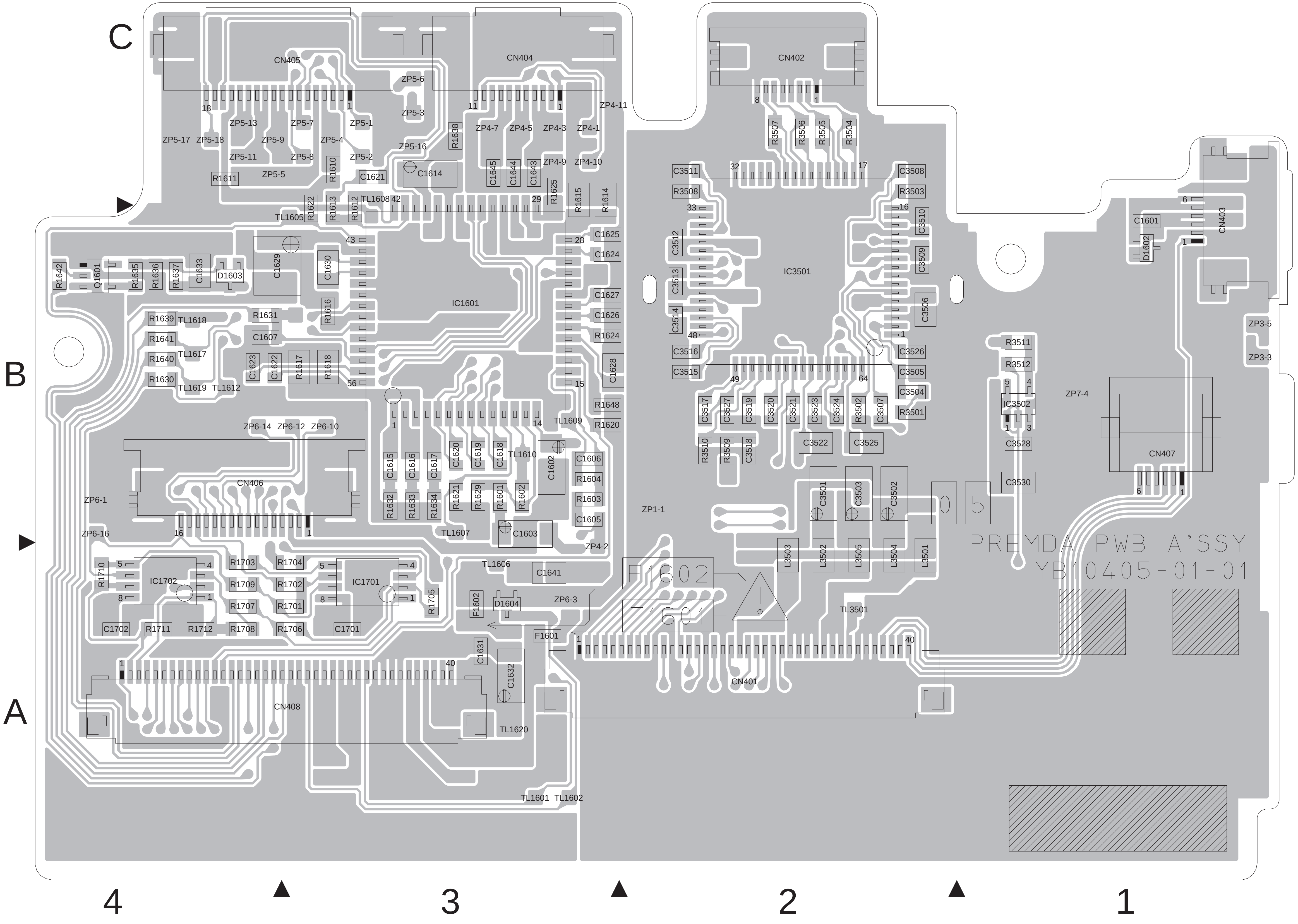
FOIL SIDE(B)



■ PREMDA CIRCUIT BOARD

<05> PREMDA
YB 10405-01-01

COMPONENT SIDE(A)


C
B
A
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CN405
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IC1601
IC3501
IC3502
IC1702
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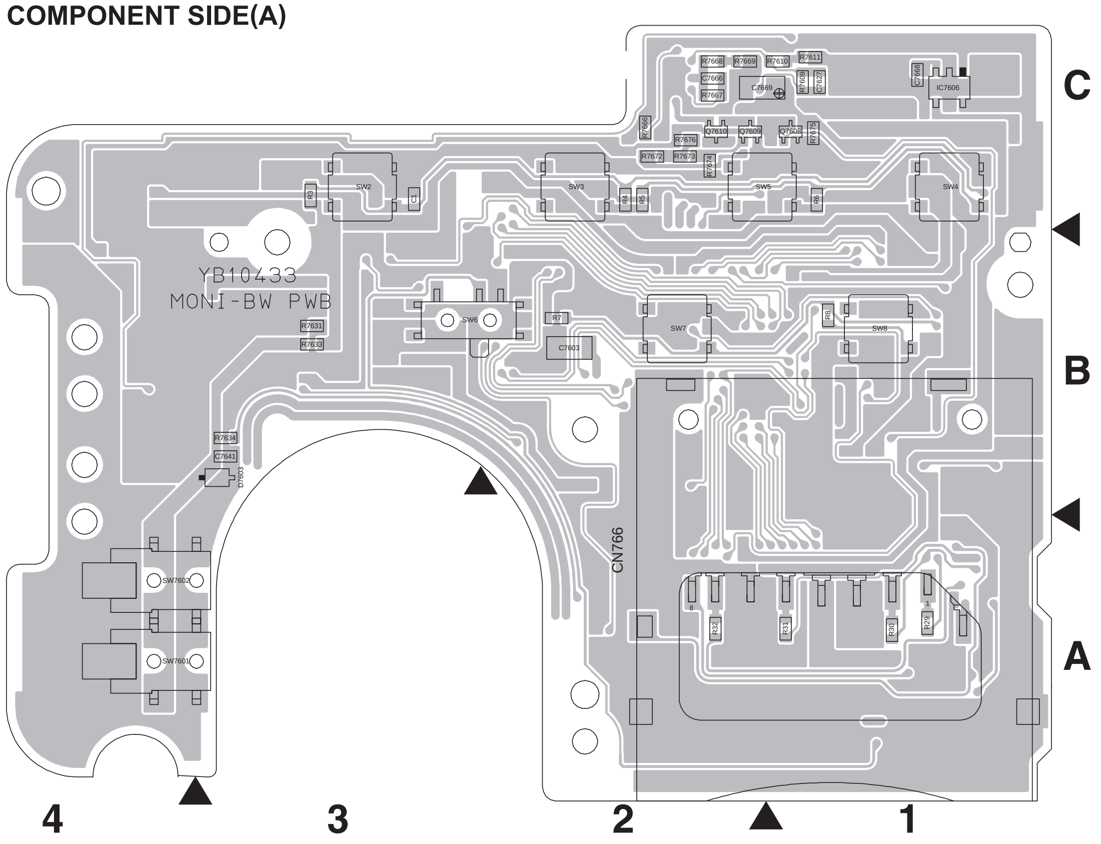
F1601
PREMDA PWB A'SSY
YB10405-01-01
05

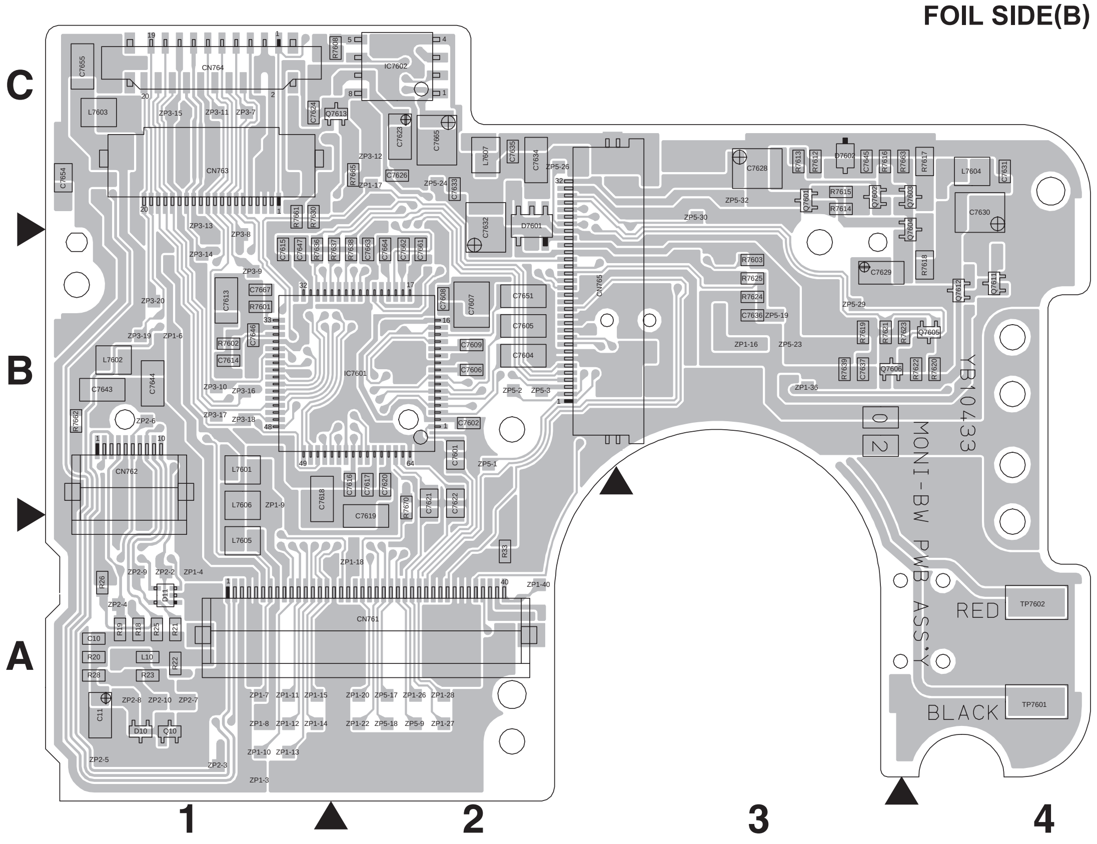
■ MONI-BW CIRCUIT BOARD

COMPONENT SIDE(A)



<02> MONI-BW
YB 10433

FOIL SIDE(B)



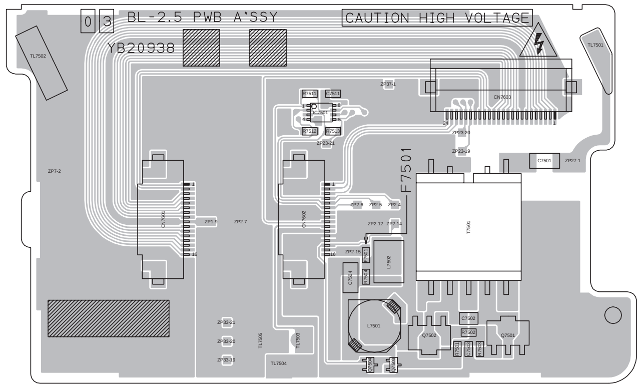
<02> MONI-BW
YB 10433

COMPONENT PARTS LOCATION GUIDE <MONI-BW> YB10433

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR		C7627	A C 1C	C7667	B C 1B	L7601	B C 1B	R5	A C 2C	R7613	B C 3C	R7667	A C 2C	ZP1-3	B C 1A	ZP1-15	B C 1A	ZP5-23	B C 3B
C1	A C 3C	C7628	B C 3C	C7668	A C 1C	L7602	B C 1B	R6	A C 1C	R7614	B C 3C	R7668	A C 2C	ZP1-4	B C 1A	ZP1-16	B C 3B	ZP5-24	B C 2C
C10	B C 1A	C7629	B C 3B	C7669	A C 2C	L7603	B C 1C	R7	A C 2B	R7615	B C 3C	R7669	A C 2C	ZP1-6	B C 1B	ZP1-17	B C 2C	ZP5-26	B C 2C
C11	B C 1A	C7630	B C 4C			L7604	B C 4C	R8	A C 1B	R7616	B C 3C	R7670	B C 2B	ZP1-7	B C 1A	ZP1-18	B C 2A	ZP5-29	B C 3B
C7601	B C 2B	C7631	B C 4C	**CONNECTOR**		L7605	B C 1A	R18	B C 1A	R7617	B C 4C	R7672	A C 2C	ZP1-8	B C 1A	ZP1-20	B C 2A	ZP5-30	B C 3C
C7602	B C 2B	C7632	B C 2C	CN761	B C 1A	L7606	B C 1B	R19	B C 1A	R7618	B C 4B	R7673	A C 2C	ZP1-9	B C 1B	ZP1-22	B C 2A	ZP5-32	B C 3C
C7603	A C 2B	C7633	B C 2C	CN762	B C 1B	L7607	B C 2C	R20	B C 1A	R7619	B C 3B	R7674	A C 2C	ZP2-2	B C 1A	ZP1-26	B C 2A		
C7604	B C 2B	C7634	B C 2C	CN763	B C 1C			R21	B C 1A	R7620	B C 4B	R7675	A C 1C	ZP2-3	B C 1A	ZP1-27	B C 2A		
C7605	B C 2B	C7635	B C 2C	CN764	B C 1C	**TRANSISTOR**		R22	B C 1A	R7621	B C 3B	R7676	A C 2C	ZP2-4	B C 1A	ZP1-28	B C 2A		
C7606	B C 2B	C7636	B C 3B	CN765	B C 2B	Q10	B C 1A	R23	B C 1A	R7622	B C 4B			ZP2-5	B C 1A	ZP1-36	B C 3B		
C7607	B C 2B	C7637	B C 3B	CN766	A C 1A	Q7601	B C 3C	R25	B C 1A	R7623	B C 4B	**OTHER**		ZP2-6	B C 1B	ZP1-40	B C 2A		
C7608	B C 2B	C7641	A C 3B			Q7602	B C 3C	R26	B C 1A	R7624	B C 3B	SW2	A C 3C	ZP2-7	B C 1A	ZP2-10	B C 1A		
C7609	B C 2B	C7643	B C 1B	**DIODE**		Q7603	B C 4C	R28	B C 1A	R7625	B C 3B	SW3	A C 2C	ZP2-8	B C 1A	ZP3-10	B C 1B		
C7613	B C 1B	C7644	B C 1B	D10	B C 1A	Q7604	B C 4C	R29	A C 1A	R7630	B C 1C	SW4	A C 1C	ZP2-9	B C 1A	ZP3-11	B C 1C		
C7614	B C 1B	C7645	B C 3C	D11	B C 1A	Q7605	B C 4B	R30	A C 1A	R7631	A C 3B	SW5	A C 2C	ZP3-7	B C 1C	ZP3-12	B C 2C		
C7615	B C 1B	C7646	B C 1B	D7601	B C 2C	Q7606	B C 4B	R31	A C 1A	R7633	A C 3B	SW6	A C 3B	ZP3-8	B C 1B	ZP3-13	B C 1C		
C7616	B C 2B	C7647	B C 1B	D7602	B C 3C	Q7608	A C 1C	R32	A C 2A	R7634	A C 3B	SW7	A C 2B	ZP3-9	B C 1B	ZP3-14	B C 1B		
C7617	B C 2B	C7651	B C 2B	D7603	A C 3B	Q7609	A C 2C	R33	B C 2A	R7636	B C 1B	SW8	A C 1B	ZP5-1	B C 2B	ZP3-15	B C 1C		
C7618	B C 1B	C7654	B C 1C			Q7610	A C 2C	R7601	B C 1B	R7637	B C 2B	SW7601	A C 4A	ZP5-2	B C 2B	ZP3-16	B C 1B		
C7619	B C 2B	C7655	B C 1C	**IC**		Q7611	B C 4B	R7602	B C 1B	R7638	B C 2B	SW7602	A C 4A	ZP5-3	B C 2B	ZP3-17	B C 1B		
C7620	B C 2B	C7661	B C 2B	IC7601	B C 2B	Q7612	B C 4B	R7603	B C 3B	R7639	B C 3B	TM1	A C 4A	ZP5-9	B C 2A	ZP3-18	B C 1B		
C7621	B C 2B	C7662	B C 2B	IC7602	B C 2C	Q7613	B C 2C	R7608	B C 2C	R7661	B C 1C	TM5	A C 4A	ZP1-10	B C 1A	ZP3-19	B C 1B		
C7622	B C 2B	C7663	B C 2B	IC7606	A C 1C			R7609	A C 1C	R7662	B C 1B	TM13	A C 4A	ZP1-11	B C 1A	ZP3-20	B C 1B		
C7623	B C 2C	C7664	B C 2B			**RESISTOR**		R7610	A C 1C	R7663	B C 4C	TM17	A C 3A	ZP1-12	B C 1A	ZP5-17	B C 2A		
C7624	B C 1C	C7665	B C 2C	**COIL**		R3	A C 3C	R7611	A C 1C	R7665	B C 2C	TP7601	B C 4A	ZP1-13	B C 1A	ZP5-18	B C 2A		
C7626	B C 2C	C7666	A C 2C	L10	B C 1A	R4	A C 2C	R7612	B C 3C	R7666	A C 2C	TP7602	B C 4A	ZP1-14	B C 1A	ZP5-19	B C 3B		

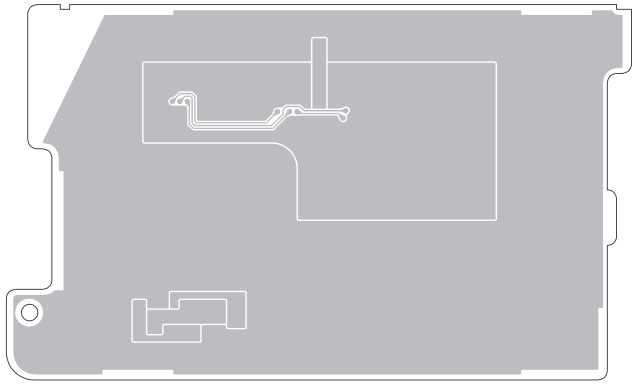
■ BL-2.5 CIRCUIT BOARD

COMPONENT SIDE(A)



<03> BL-2.5
YB 20938

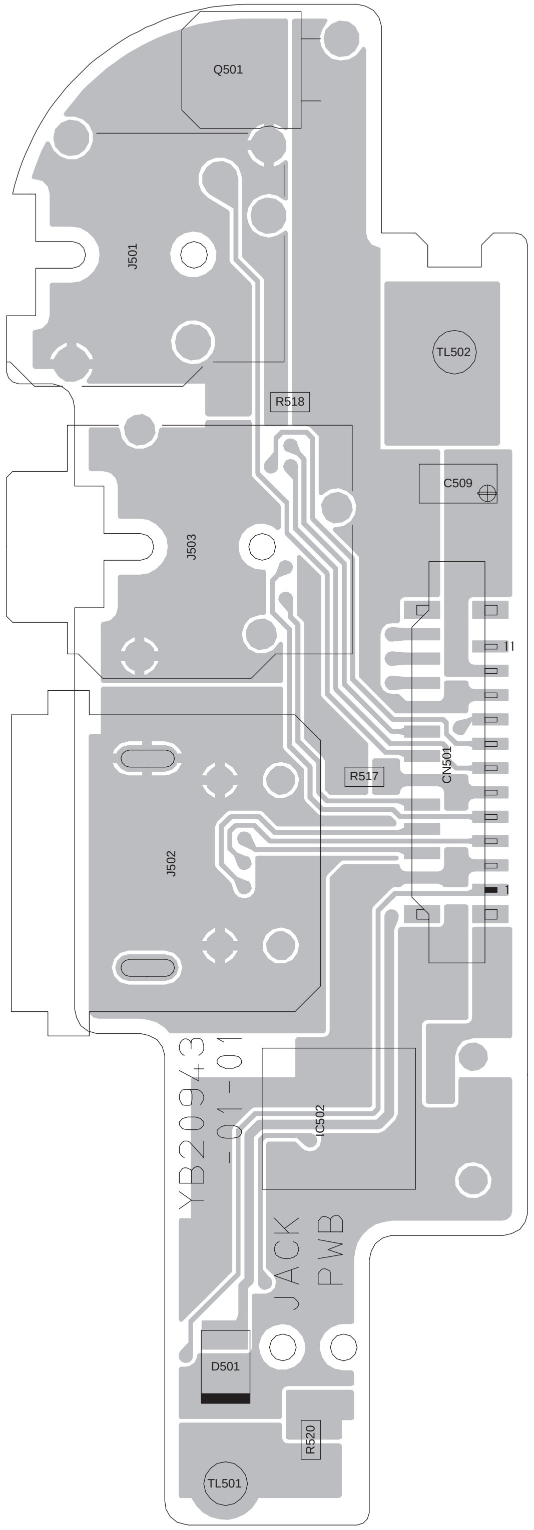
FOIL SIDE(B)



<03> BL-2.5
YB 20938

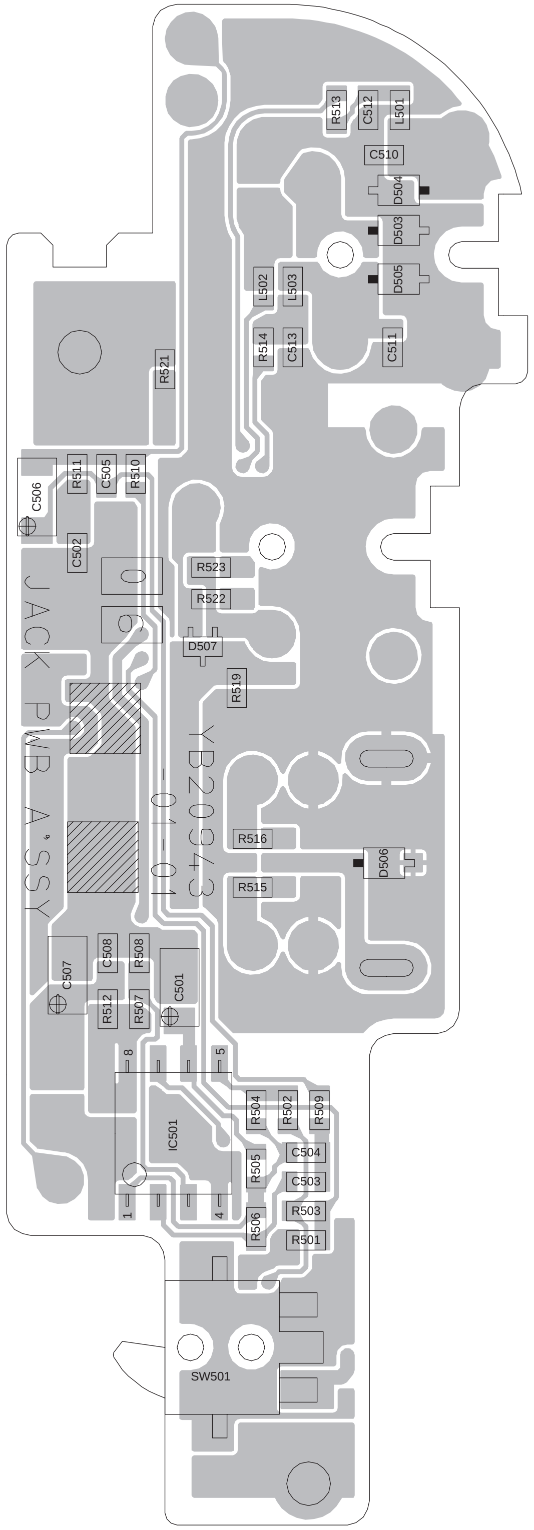
■ JACK CIRCUIT BOARD

COMPONENT SIDE(A)


Q501
J501
TL502
R518
C509
J503
CN501
11
R517
J502
1
YB20943 -01-01
C502
JACK PWB
D501
R520
TL501

<06> JACK
YB 20943-01-01

FOIL SIDE(B)


R513
C512
L501
C510
D504
D503
L502
L503
D505
R514
C513
C511
R521
C506
R511
C505
R510
C502
0 6
R523
R522
D507
R519
JACK PWB A'SSY
YB20943 -01-01
R516
R515
D506
C507
C508
R508
C501
R512
R507
8
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IC501
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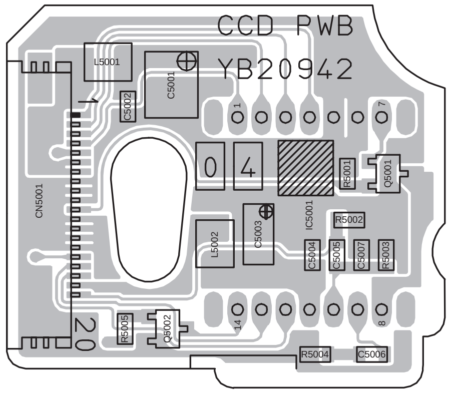
4
R504
R502
R509
R505
C504
C503
R506
R503
R501
SW501

<06> JACK
YB 20943-01-01

■ CCD CIRCUIT BOARD

COMPONENT SIDE(A)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YB20942
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C5001
C5002
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7
CN5001
0 4
R5001
Q5001
IC5001
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L5002
C5003
C5004
C5005
C5007
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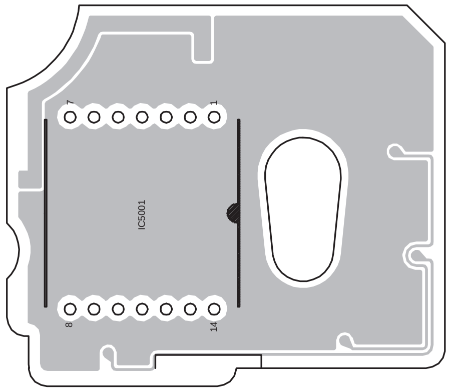
R5004
C5006

<04> CCD
YB 20942

FOIL SIDE(B)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IC5001
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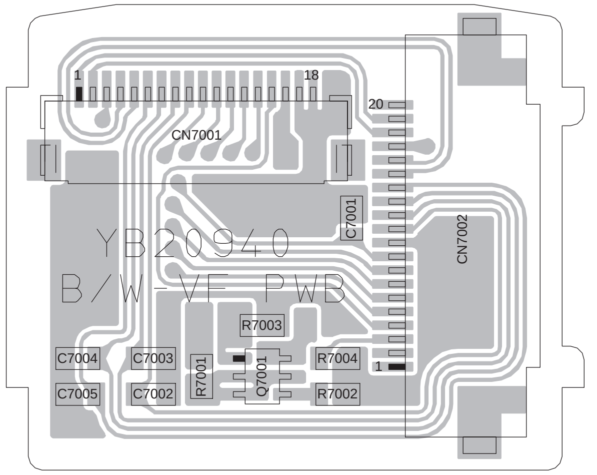
14

<04> CCD
YB 20942

■ B/W-VF CIRCUIT BOARD

COMPONENT SIDE(A)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18
20
CN7001
C7001
CN7002
YB20940
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R7003
C7004
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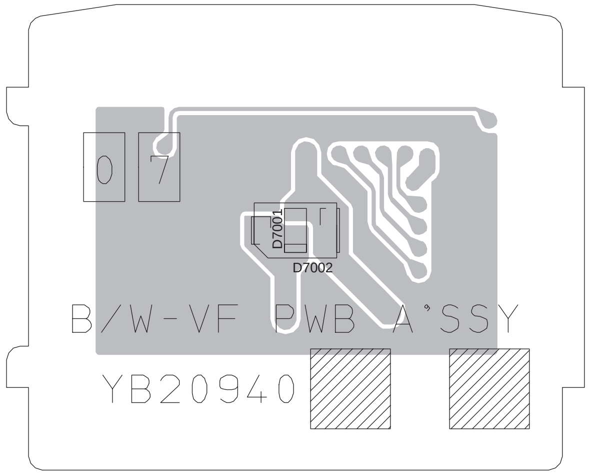
R7001
Q7001
R7004
1
C7005
C7002
R7002

<07> B/W-VF
YB 20940

FOIL SIDE(B)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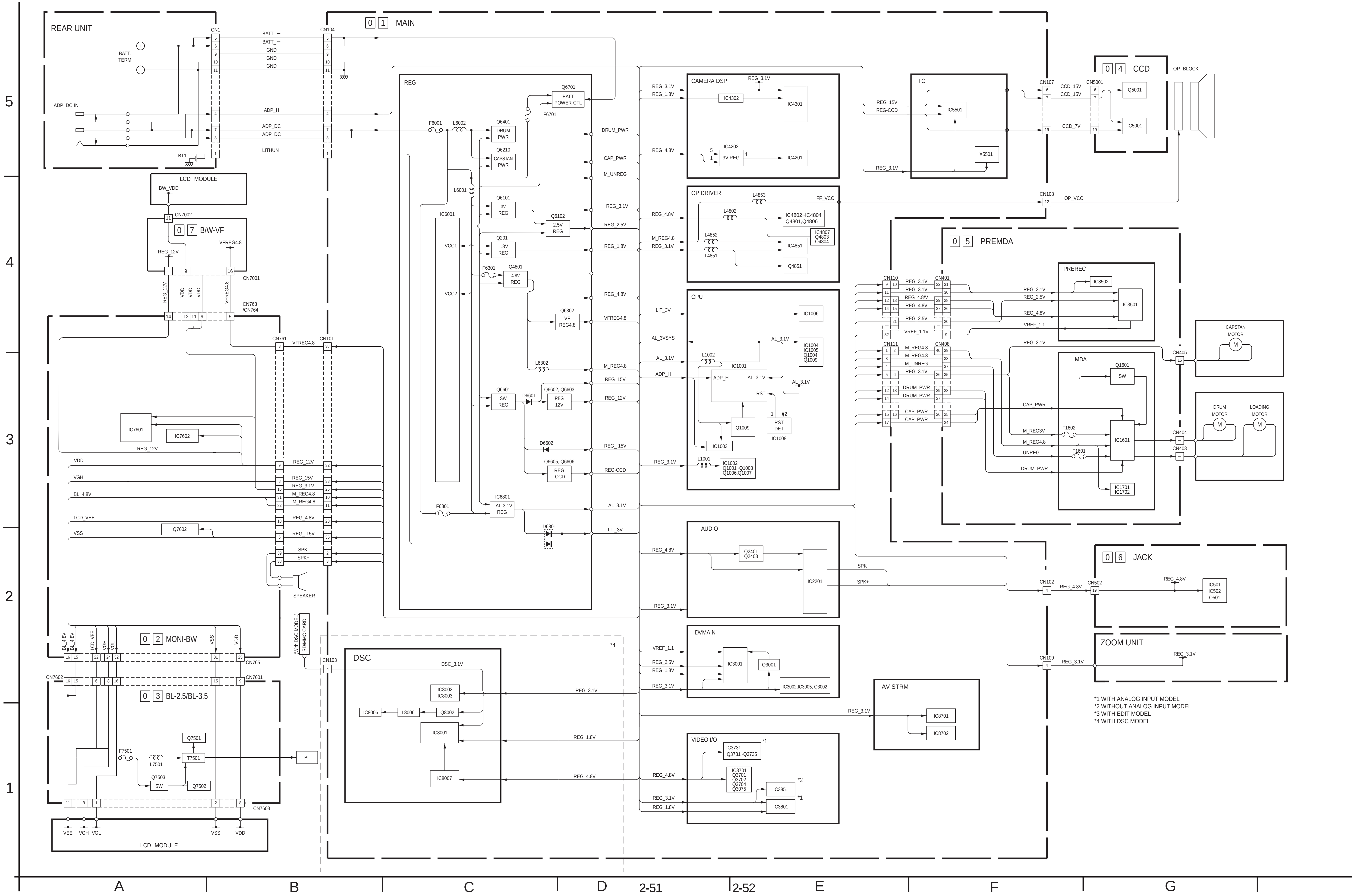
D7001
D7002
B/W-VF PWB A'SSY
YB20940

<07> B/W-VF
YB 20940

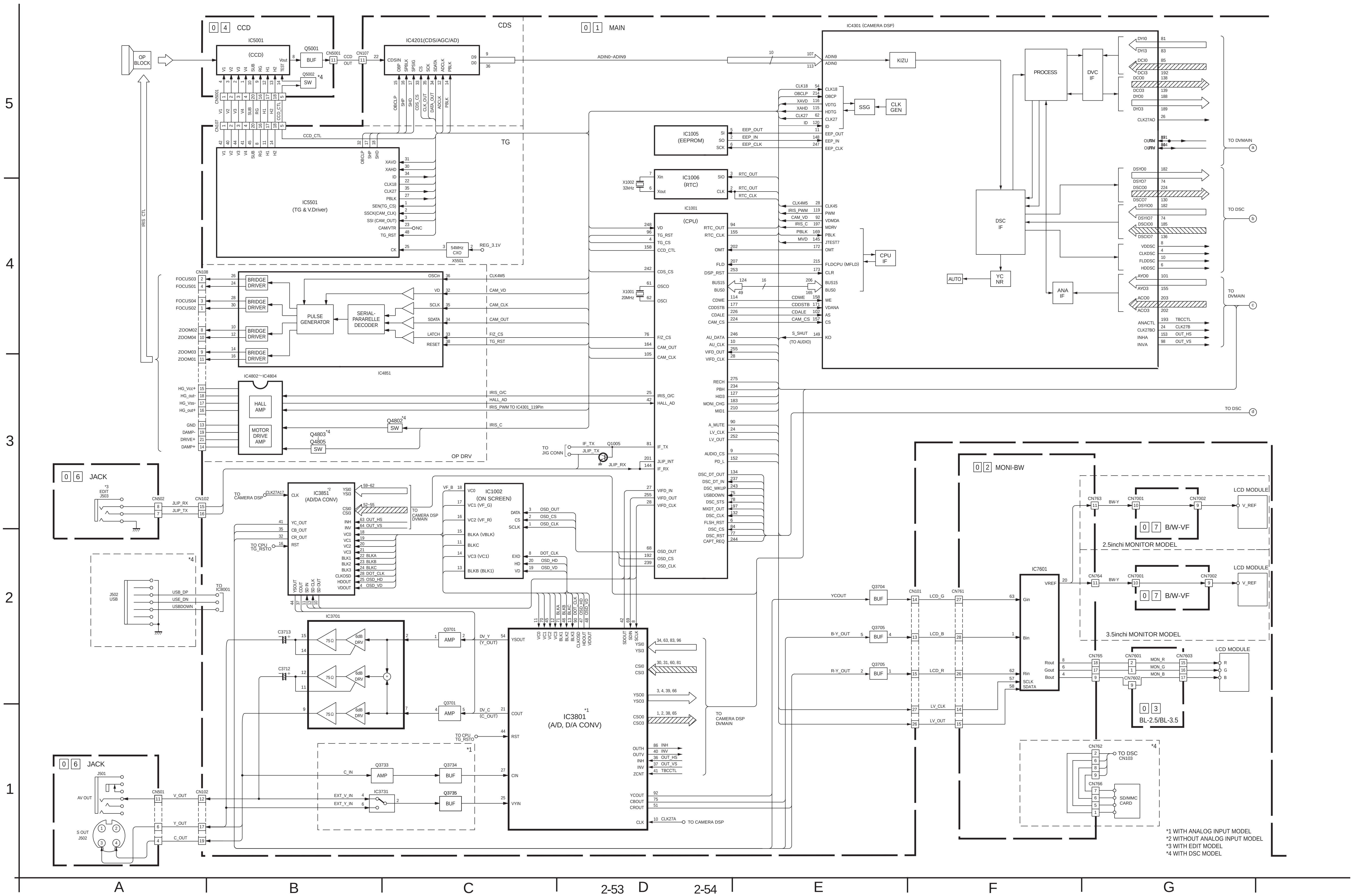
■ POWER SYSTEM BLOCK DIAGRAM



REAR UNIT
BATT. TERM
ADP_DC IN
BT1
CN1
CN104
BATT_+
GND
ADP_H
ADP_DC
LITHUN
01 MAIN
REG
F6001
L6002
Q6401 DRUM PWR
Q6210 CAPSTAN PWR
Q6701 BATT POWER CTL
F6701
L6001
IC6001
VCC1
VCC2
Q6101 3V REG
Q6102 2.5V REG
Q201 1.8V REG
F6301
Q4801 4.8V REG
Q6302 VF REG4.8
L6302
Q6601 SW REG
D6601
Q6602, Q6603 REG 12V
D6602
Q6605, Q6606 REG -CCD
F6801
IC6801 AL 3.1V REG
D6801
DRUM_PWR
CAP_PWR
M_UNREG
REG_3.1V
REG_2.5V
REG_1.8V
REG_4.8V
VFREG4.8
M_REG4.8
REG_15V
REG_12V
REG_-15V
REG-CCD
AL_3.1V
LIT_3V
CAMERA DSP
IC4302
IC4301
IC4202 3V REG
IC4201
OP DRIVER
L4853
FF_VCC
L4802
IC4802~IC4804 Q4801,Q4806
IC4807 Q4803 Q4804
L4852
L4851
IC4851
Q4851
M_REG4.8
CPU
IC1006
AL_3VSYS
IC1004 IC1005 Q1004 Q1009
L1002
IC1001
ADP_H
AL_3.1V
RST
Q1009
RST DET
IC1008
IC1003
L1001
IC1002 Q1001~Q1003 Q1006,Q1007
TG
REG_15V
REG-CCD
IC5501
X5501
CN107
CN108
OP_VCC
04 CCD
CN5001
CCD_15V
CCD_7V
Q5001
IC5001
OP BLOCK
05 PREMDA
CN110
CN401
CN111
CN408
REG_4.8V
VREF_1.1V
M_REG4.8
M_UNREG
DRUM_PWR
CAP_PWR
PREREC
IC3502
IC3501
MDA
Q1601 SW
F1602
F1601
IC1601
IC1701 IC1702
M_REG3V
UNREG
CN405
CN404
CN403
CAPSTAN MOTOR
DRUM MOTOR
LOADING MOTOR
M
AUDIO
Q2401 Q2403
IC2201
SPK-
SPK+
06 JACK
CN102
CN502
IC501 IC502 Q501
ZOOM UNIT
CN109
DVMAIN
VREF_1.1
IC3001
Q3001
IC3002,IC3005, Q3002
AV STRM
IC8701
IC8702
VIDEO I/O
IC3731 Q3731~Q3735
IC3701 Q3701 Q3702 Q3704 Q3075
IC3851
IC3801
*1
*2
*4
DSC
CN103
DSC_3.1V
IC8002 IC8003
IC8006
L8006
Q8002
IC8001
IC8007
(With DSC MODEL) SD/MMC CARD
LCD MODULE
BW_VDD
CN7002
07 B/W-VF
REG_12V
VFREG4.8
CN7001
VDD
CN763 /CN764
CN761
CN101
IC7601
IC7602
Q7602
VGH
BL_4.8V
LCD_VEE
VSS
SPEAKER
02 MONI-BW
CN765
CN7602
CN7601
03 BL-2.5/BL-3.5
Q7501
F7501
L7501
T7501
BL
Q7503 SW
Q7502
CN7603
VEE
VGL
A
B
C
D
E
F
G
1
2
3
4
5

*1 WITH ANALOG INPUT MODEL
*2 WITHOUT ANALOG INPUT MODEL
*3 WITH EDIT MODEL
*4 WITH DSC MODEL

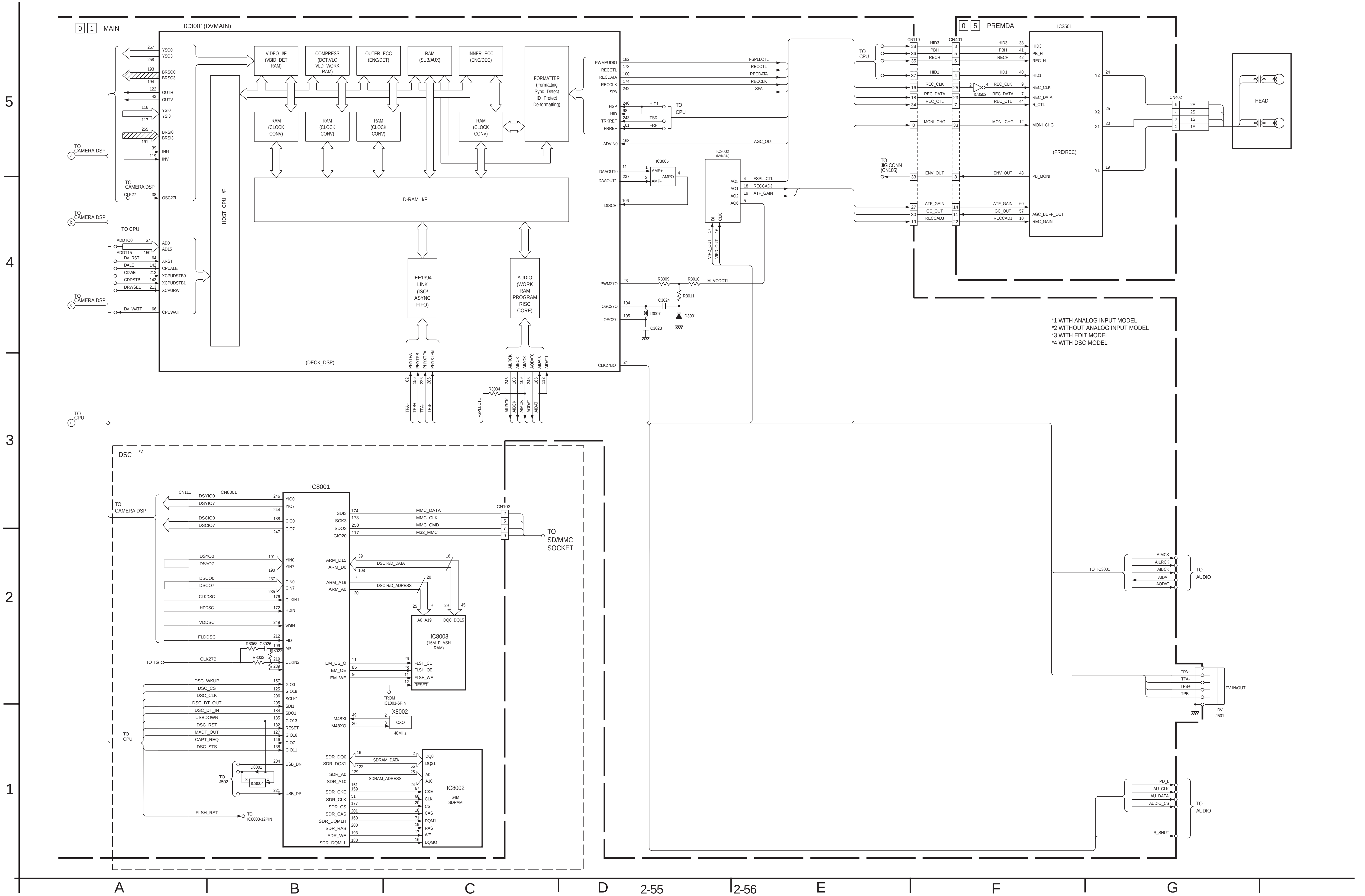
■ VIDEO BLOCK DIAGRAM (1/2)



04 CCD
01 MAIN
CDS
TG
OP DRV
OP BLOCK
IC5001 (CCD)
Q5001 BUF
Q5002 SW
CN5001
CN107
IC4201(CDS/AGC/AD)
IC5501 (TG & V.Driver)
CCD_CTL
IRIS_CTL
X5501 54MHz CXO
REG_3.1V
ADIN0~ADIN9
IC4301 (CAMERA DSP)
KIZU
PROCESS
DVC IF
SSG
CLK GEN
CPU IF
DSC IF
YC NR
ANA IF
AUTO
IC1005 (EEPROM)
IC1006 (RTC)
X1002 32kHz
IC1001 (CPU)
X1001 20MHz
TO DVMAIN
TO DSC
TO DVMAIN
TO DSC
CN108
FOCUS03
FOCUS01
FOCUS04
FOCUS02
ZOOM02
ZOOM04
ZOOM03
ZOOM01
BRIDGE DRIVER
PULSE GENERATOR
SERIAL-PARARELLE DECODER
IC4851
IC4802~IC4804
HALL AMP
MOTOR DRIVE AMP
Q4802 SW
Q4803 Q4805 SW
HG_Vcc+
HG_out-
HG_Vss-
HG_out+
GND
DAMP-
DRIVE+
DAMP+
TO JIG CONN
Q1005
06 JACK
J503 EDIT
CN502
CN102
JLIP_RX
JLIP_TX
*4
J502 USB
USB_DP
USB_DN
USBDOWN
TO IC8001
IC3851 (AD/DA CONV)
TO CAMERA DSP
TO CAMERA DSP DVMAIN
IC1002 (ON SCREEN)
IC3701
C3713
C3712
Q3701 AMP
IC3801 (A/D, D/A CONV)
TO CPU TG_RSTO
Q3733 AMP
Q3734 BUF
IC3731
Q3735 BUF
TO CAMERA DSP
06 JACK
J501 AV OUT
J502 S OUT
CN501
V_OUT
Y_OUT
C_OUT
EXT_V_IN
EXT_Y_IN
C_IN
02 MONI-BW
CN101
CN761
Q3704 BUF
Q3705 BUF
YCOUT
B-Y_OUT
R-Y_OUT
LCD_G
LCD_B
LCD_R
LV_CLK
LV_OUT
IC7601
CN763
CN7001
CN7002
07 B/W-VF
LCD MODULE
2.5inchi MONITOR MODEL
CN764
3.5inchi MONITOR MODEL
CN765
CN7601
CN7603
CN7602
MON_R
MON_G
MON_B
03 BL-2.5/BL-3.5
CN762
TO DSC CN103
CN766
SD/MMC CARD
5
4
3
2
1
A
B
C
D
E
F
G

*1 WITH ANALOG INPUT MODEL
*2 WITHOUT ANALOG INPUT MODEL
*3 WITH EDIT MODEL
*4 WITH DSC MODEL

■ VIDEO BLOCK DIAGRAM (2/2)



01 MAIN
IC3001(DVMAIN)
VIDEO I/F (VBID DET RAM)
COMPRESS (DCT.VLC VLD WORK RAM)
OUTER ECC (ENC/DET)
RAM (SUB/AUX)
INNER ECC (ENC/DEC)
FORMATTER (Formatting Sync Detect ID Protect De-formatting)
RAM (CLOCK CONV)
HOST CPU I/F
D-RAM I/F
IEE1394 LINK (ISO/ ASYNC FIFO)
AUDIO (WORK RAM PROGRAM RISC CORE)
(DECK_DSP)
TO CAMERA DSP
TO CPU
IC3005
AMP+
AMP-
AMPO
IC3002 (DVMAIN)
R3009
R3010
R3011
M_VCOCTL
C3024
L3007
D3001
C3023
R3034
05 PREMDA
IC3501
CN110
CN401
IC3502
(PRE/REC)
CN402
HEAD
TO JIG CONN (CN105)
DSC *4
IC8001
CN111
CN8001
CN103
TO SD/MMC SOCKET
IC8003 (16M_FLASH RAM)
X8002
CXO
48MHz
FROM IC1001-6PIN
IC8002 64M SDRAM
D8001
IC8004
TO J502
TO TG
TO IC8003-12PIN
TO IC3001
TO AUDIO
DV IN/OUT
DV J501
A
B
C
D
E
F
G
1
2
3
4
5

*1 WITH ANALOG INPUT MODEL
*2 WITHOUT ANALOG INPUT MODEL
*3 WITH EDIT MODEL
*4 WITH DSC MODEL

■ VOLTAGE CHARTS

<MAIN IF>

MODE PIN NO.	REC	PLAY
Q2001		
1	0	0
2	0.5	0.5
3	3.0	3.0
4	0	0
5	0	0
6	0	0
Q2002		
1	0	0
2	0	0
3	0	2.9
4	0	0
5	0.5	0
6	0.5	0
Q2003		
1	0	0
2	0.5	0.5
3	3.0	2.3
4	0	0
5	0	0
6	0	0
Q2004		
1	0	0
2	0.5	0
3	2.9	0
4	0	0
5	0	0.5
6	0	0.5
Q2005		
1	0	0
2	0.5	0.5
3	2.9	2.9
4	0	0
5	0	0
6	0	0
Q2006		
1	0	0
2	0.4	0.4
3	2.9	2.9
4	0	0
5	0	0
6	0	0

<CPU>

MODE PIN NO.	REC	PLAY
IC1001	-	-
IC1002		
1	2.8	2.8
2	2.5	2.5
3	2.7	2.7
4	3	3
5	3.1	3.1
6	3.1	3.1
7	1.4	1.4
8	1.5	1.5
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	3	3
20	2.8	2.8
IC1003		
1	0	0
2	3	3
3	0	0
4	3	3
5	3	3
IC1004		
1	1.2	1.2
2	0	0
3	1.4	1.4
4	0	0
5	3	3
IC1005		
1	3	3
2	0	0
3	3	3
4	0	0
5	3	3
6	3	3
7	3	3
8	3	3
IC1006		
1	0	0
2	3	3
3	3	3
4	0	0
5	3	-
6	0.5	0.5
7	0.4	0.8
8	3	3.2
IC1007		
1	3	3
2	3	3
3	0	0
4	0	0
Q1001		
E	3.1	3.1
C	3.1	3.1
B	3	3
Q1002		
1	0	0
2	3	3
3	0	3.1
4	0	2.9
5	0	0
Q1003		
1	0	0
2	3	0
3	3.1	3.1
4	-0.8	-0.4
5	3.1	3.1
Q1004		
1	0	0
2	3	3
3	3	3
4	3	3
5	0	0
Q1005		
E	0	0
C	1	0.4
B	0	0
Q1006		
1	0	0
2	3	0
3	3.1	3.1
4	3	-0.2
5	0	3.1
Q1007		
E	0	0
C	3.1	3.1
B	0.5	0.5
Q1008		
E	0	0
C	0	0
B	3	0

MODE PIN NO.	REC	PLAY
Q1009		
D	3	3
S	0	0
G	3	3

<AUDIO>

MODE PIN NO.	REC	PLAY
IC2201		
1	0	0
2	0	0
3	0	0
4	3	3
5	3.1	3.1
6	0	0
7	1.5	1.5
8	1.4	1.4
9	1.5	1.5
10	2.9	2.9
11	2.9	2.9
12	3	3
13	1.5	1.5
14	1.5	1.5
15	3	3
16	0	0
17	1.5	1.5
18	2.4	2.4
19	1.5	1.5
20	2.4	2.4
21	1.5	1.5
22	0.2	2.4
23	1.5	1.5
24	0.2	2.4
25	0.9	0.9
26	0	0
27	0	0
28	4.8	4.8
29	0	0
30	2.4	2.4
31	0	0
32	3	3
33	1.5	1.5
34	0.8	1.1
35	0.8	1.1
36	1.5	1.5
37	1.5	1.5
38	1.5	1.5
39	1.5	0.2
40	1.5	0
41	0	0
42	4	4.7
43	2.6	0
44	4	4.4
45	1.5	0.2
46	1.5	0.2
47	1.5	1.5
48	1.5	1.5
Q2202		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
Q2401		
E	4	4.7
C	4.8	4.8
B	4.8	4.8
Q2403		
E	3	3
C	4.8	4.8
B	3.7	3.7

<DV MAIN>

MODE PIN NO.	REC	PLAY
IC3001	-	-
IC3002		
1	0	0
2	0.5	0.5
3	0.4	0.4
4	1.7	1.7
5	0.7	0.7
6	2.4	2.4
7	1.2	1.2
8	3.1	3.1
9	3.1	3.1
10	3.1	3.1
11	3.1	3.1
12	2.1	2.1
13	1.1	1.1
14	0	0
15	0	0
16	3	3
17	3	3
18	1.4	1.4
19	1.3	1.3
20	0	0
IC3005		
1	0	0.4
2	0	0.4
3	0	0
4	0.8	1.7
5	0	0
6	0	0
7	0	0
8	0	3.1
Q3001		
E	1.8	1.8
C	2.9	2.9
B	2.4	2.4
Q3002		
E	0.3	1.2
C	3.1	3.1
B	0.8	1.7

<VIDEO I/O>

MODE PIN NO.	REC	PLAY
IC3701		
1	0	0
2	2.3	2.3
3	0	0
4	0	0
5	0	0
6	0	0
7	1.9	1.9
8	0	0
9	2.3	2.3
10	0	0
11	2.1	2.1
12	2.1	2.1
13	4.8	4.8
14	1.9	1.9
15	1.9	1.9
16	4.8	4.8
IC3731		
1	3	3
2	2	2
3	4.8	4.8
4	1.7	1.7
5	0	0
6	2.3	2.3
IC3801	-	-
IC3851	-	-
Q3701		
1	1.2	1.2
2	0.6	0.6
3	0	0
4	1.4	1.4
5	0.8	0.8
6	0	0
Q3702		
1	0.2	0
2	0	0
3	0	0
4	4.8	4.8
5	4.9	4.7
6	4.9	4.7
Q3704		
E	0.9	0.9
C	0	0
B	0.3	0.3
Q3705		
1	0.9	0.9
2	0.3	0.3
3	0	0
4	0.9	0.9
5	0.3	0.3
6	0	0
Q3731		
E	0	0
C	4.8	4.8
B	0	0
Q3732		
E	0	0
C	0	0
B	3	3
Q3733		
1	0	0
2	0.4	0.4
3	0	0
4	4.8	4.8
5	4.8	4.8
6	4.8	4.8
Q3734		
E	0	0
C	4.8	4.8
B	0	0
Q3735		
1	0.1	0.1
2	0.4	0.4
3	0	0
4	2.1	2.1
5	1.5	1.5
6	4.8	4.8

<CDS/DSP>

MODE PIN NO.	REC	PLAY
IC4201		
1	1.2	0
2	1.2	0
3	0.5	0
4	0.2	0
5	0	3
6	0	0
7	0	0
8	0	0
9	1.2	0
10	3	3
11	0	0
12	1.5	1.5
13	3	3
14	2.5	0
15	3	0
16	2.4	0
17	2.5	0
18	0	0
19	3	3
20	1.9	0
21	1.9	0
22	2	0
23	1.9	0
24	1.2	0
25	3	3
26	0	0
27	0	0
28	1.4	0
29	2	0
30	0.9	0
31	3	3
32	0	0
33	3	3
34	3	3
35	3	3
36	1.2	0
IC4202		
1	4.8	4.8
2	0	0
3	1.2	1.2
4	3	3
5	4.8	4.8
IC4301	-	-
IC4302		
1	1.6	1.8
2	0	0
3	1.8	1.8
4	1.8	1.8
5	1.4	1.4

<OP DRIVE>

MODE PIN NO.	REC	PLAY
IC4802		
1	3.1	3.1
2	2.6	2.6
3	2.6	2.6
4	0	0
5	2.6	2.6
6	2.6	2.6
7	2.6	2.6
8	4.8	4.8
IC4803		
1	1.3	1.3
2	0.6	0.6
3	0.6	0.6
4	0	0
5	2.6	2.6
6	2.6	2.6
7	1.6	2.8
8	4.8	4.8
IC4804		
1	1.3	0.3
2	1.6	2.6
3	1.6	0
4	0	0
5	1.5	3
6	1.5	3
7	2	0
8	4.8	4.8
IC4807		
1	1.5	3
2	1.5	3
3	4.8	4.8
4	0	0
5	1.5	3
6	1.5	3
7	4.8	4.8
8	4.8	4.8
IC4851		
1	0	0
2	0.6	0.6
3	0.3	0.3
4	0	0
5	0	0.3
6	0.3	0
7	0	0
8	3.1	3.1
9	4.6	4.6
10	0.6	0.6
11	0	0
12	0.7	0.5
13	4.6	4.6
14	0.7	0.7
15	0	0
16	0.7	0.7
17	0	0
18	0	0
19	0	0
20	0	0
21	0	0
22	0	0
23	4.6	4.6
24	0.8	1.5
25	0	0
26	0.8	1.5
27	4.8	4.6
28	0.8	1.5
29	0	0
30	0.8	1.5
31	3.1	3.1
32	0	0
33	0	0
34	3	3
35	3	3
36	1.5	1.5
37	1.5	1.5
38	3	3
Q4801		
E	0.6	0.6
C	2.1	2.1
B	1.3	1.3
Q4802		
E	0	0
C	1.5	3
B	0	0
Q4803		
E	0	0
C	4.8	4.8
B	0	0
Q4804		
E	4.8	4.8
C	1.5	3
B	4.8	4.8
Q4805		
E	4.8	4.8
C	1.5	3
B	4.8	4.8

MODE PIN NO.	REC	PLAY
Q4806		
E	1.2	0
C	4.8	4.8
B	2	0
Q4851		
E	0	0
C	3.5	3.7
B	0	0

<TG>

MODE PIN NO.	REC	PLAY
IC5501		
1	0	0
2	3	3
3	3	3
4	3	3.1
5	0	0
6	3	3.1
7	0.3	0
8	0.3	0
9	0	0
10	3	3.1
11	1.6	0
12	3	3.1
13	0	0
14	1.3	0
15	0	0
16	3.1	3.1
17	2.3	0
18	2.3	0
19	2.4	0
20	0	0
21	0	0
22	1.2	1.4
23	0	0
24	3	3.1
25	0	0.6
26	3.1	0
27	2.5	0
28	0	0
29	0	0
30	0.3	0
31	0	3
32	3	0
33	3	3.1
34	1.5	0
35	1.3	1.4
36	3	3.1
37	0	0
38	0	0
39	0	0
40	-0.3	0
41	-7.1	0
42	-0.3	15.1
43	15.1	15.1
44	-7.1	15.1
45	-7.1	15.1
46	-7.6	-7.6
47	0	0
48	3	3

<REG>

MODE PIN NO.	REC	PLAY
IC6001		
1	3.1	3.1
2	3	3
3	3	3
4	3	3
5	3	3
6	0	0
7	1.2	1.2
8	11.1	11.1
9	1	1
10	1.2	1.2
11	2.2	2.2
12	0	0
13	0	0
14	0	0
15	0	0
16	0	0
17	0.1	0.1
18	0	0
19	2.2	2.2
20	1	1
21	0	0
22	2.2	2.2
23	1	1
24	0.6	0.6
25	1	1
26	0.6	0.6
27	1	1
28	0.8	0.8
29	1	1
30	0.6	0.6
31	0.3	0.3
32	0.3	0.3
33	0.6	0.6
34	0	0
35	0	0
36	0.5	0.5
37	0.8	0.8
38	0	0
39	1	1
40	0	0
41	2.5	2.5
42	1.1	1.1
43	0	0
44	2.2	2.2
45	2.2	0
46	2.2	2.2
47	6.5	6.5
48	1	1
49	1	1
50	2.6	2.1
51	11.1	11.1
52	0	0
53	9.7	9.7
54	8.8	8.8
55	8	8
56	6	6
57	9.1	9.1
58	7.8	7.8
59	0	0
60	11.1	11.1
61	0	0
62	0	0
63	0.2	0.2
64	2	2
IC6801		
1	11.1	11.1
2	0	0
3	1.2	1.2
4	10.4	10.4
5	11.1	11.1
Q6101		
1	7.8	7.8
2	11.1	11.1
3	0	0
4	3.1	3.1
5	3.1	3.1
Q6102		
E	3.1	3.1
C	2.5	2.5
B	2.6	2.4
Q6201		
1	9	8.6
2	11.1	11.1
3	0	0
4	1.8	2.6
5	1.8	2.6
Q6301		
1	6	6
2	11.1	11.1
3	0	0
4	4.8	4.8
5	4.8	4.8
Q6302		
E	4.8	4.8
C	-0.6	-0.6
B	4.8	4.8

MODE PIN NO.	REC	PLAY
Q6303		
E	0	0
C	4.8	4.8
B	0	0
Q6401		
1	8.5	8.5
2	11.1	11.1
3	0	0
4	2.6	2.6
5	2.6	2.6
Q6501		
1	9.7	9.7
2	11.1	11.1
3	0	0
4	1.2	1.2
5	1.2	1.2
Q6601		
D	11.1	11.1
S	8	8
G	0	0
Q6602		
1	4.3	4.3
2	5.1	5.1
3	14.5	14.5
4	4.3	4.3
5	4.8	4.8
6	15.1	15.1
Q6603		
E	15.1	15.1
C	12	12
B	14.5	14.5
Q6604		
E	0	0
C	15.1	15.1
B	-1	-1
Q6605		
1	0	0
2	-7.6	-7.6
3	-14.5	-14.5
4	-7	-
5	-7.5	-7.5
6	-15	-15
Q6606		
E	-15	-15
C	-7.6	-7.6
B	-14.5	-15
Q6701		
D	11.1	11.1
S	11.1	11.1
G	0	0
Q6801		
1	3.2	3.2
2	3.2	3.2
3	0	0
4	10.9	10.9
5	11.1	11.1

<MDA>

MODE PIN NO.	REC	PLAY
IC1601		
1	0.4	0.4
2	0.5	0.5
3	0	0
4	0.5	0.5
5	1.5	1.5
6	1.5	1.5
7	1.5	1.5
8	1.5	1.5
9	1.6	1.6
10	1.5	1.5
11	2.8	2.8
12	1.2	1.2
13	1.6	1.6
14	1.5	1.5
15	1.5	1.5
16	1.5	1.5
17	1.6	1.6
18	3.1	3.1
19	0.7	0.7
20	0.4	0.4
21	1.3	1.3
22	1.3	1.3
23	11.1	11.1
24	2.6	2.6
25	0.7	0.7
26	1.3	1.3
27	0.7	0.7
28	1	1
29	1.2	1.2
30	1.2	1.2
31	1.2	1.2
32	0	0
33	1.2	1.2
34	1.5	1.5
35	0	0
36	0	0
37	0	0
38	0	0
39	4.6	4.6
40	-	-
41	-	-
42	1.5	1.5
43	1.5	1.5
44	14	14
45	2.3	2.3
46	12.5	12.5
47	0	0
48	0	0
49	3	3
50	3	3
51	0	0
52	1.2	1.2
53	0.2	0.2
54	1.5	1.5
55	0.7	0.7
56	0.9	0.9
IC1701		
1	-	-
2	1.5	1.5
3	1.5	1.5
4	0	0
5	1.4	1.4
6	1.5	1.5
7	-	-
8	4.6	4.6
IC1702		
1	-	-
2	1.5	1.5
3	-	-
4	0	0
5	-	-
6	1.5	1.5
7	-	-
8	4.6	4.6
Q1601		
1	0	0
2	0	0
3	4.6	4.6
4	0	0
5	4.6	4.6

<PRE/REC>

MODE PIN NO.	REC	PLAY
IC3501		
1	0	0
2	0.5	0.5
3	0	0
4	0	1.5
5	2.5	2.5
6	2.4	1.6
7	1.4	0
8	0	0
9	1.3	3.1
10	1.3	1.5
11	3.1	3.1
12	0	0
13	4.8	4.8
14	0	0
15	0	0
16	0	0
17	0	0
18	3.8	1.7
19	3.6	1.7
20	3.6	1.7
21	3.8	1.7
22	0	0
23	3.8	1.6
24	3.6	1.7
25	3.6	1.6
26	3.8	1.6
27	0	0
28	2.3	2.3
29	3.6	1.7
30	3.6	1.7
31	2.2	2.2
32	0	0
33	0	0
34	0	0
35	1.8	1.8
36	0.4	0.4
37	3.1	3.1
38	0	3
39	3.1	3.1
40	1.5	1.5
41	0	3
42	3	3
43	4.8	4.8
44	3.1	0
45	0	0
46	0	2
47	0	2
48	4.7	3.1
49	4.4	2.9
50	0.5	1.6
51	1.2	1.3
52	0.9	1.6
53	0	0
54	3.1	2.6
55	2.5	1.9
56	1.1	1.1
57	2.5	1.9
58	2.5	1.3
59	0	0
60	1.3	1.3
61	3.3	1.9
62	2.6	1.9
63	2.5	1.4
64	2.5	1.9
IC3502		
1	1.4	0
2	1.4	0
3	0	0
4	0.7	3.1
5	3.1	3.1

<JACK>

MODE PIN NO.	REC	PLAY
IC501		
1	2	2
2	2	2
3	2	2
4	0	0
5	2	2
6	2	2
7	1.5	1.5
8	4.8	4.8
IC502		
1	4.5	4.5
2	0	0
3	4.7	4.7
Q501		
E	0	0
C	4.3	4.3
B	-	-

<MONI BW>

MODE PIN NO.	EE
IC7601	
1	2.7
2	7.2
3	2.4
4	2.5
5	2.4
6	2.5
7	2.4
8	2.5
9	2.4
10	0
11	0
12	5.4
13	0.2
14	0.2
15	0.2
16	12
17	0
18	0
19	2.5
20	0.1
21	6.1
22	1.7
23	0
24	0
25	0
26	1.5
27	0
28	1.5
29	0
30	1.4
31	3.1
32	3.1
33	0.9
34	0
35	1.5
36	3.1
37	0
38	0
39	2.7
40	0
41	0
42	0
43	0
44	0.4
45	0
46	1.3
47	0
48	1.5
49	3.1
50	0
51	0
52	1.5
53	3.1
54	2.9
55	0
56	0
57	3
58	3
59	3.1
60	0
61	3.1
62	2.7
63	2.7
64	0
IC7602	
1	9
2	4.8
3	4.8
4	0
5	4.8
6	4.8
7	7.2
8	12
Q7601	
E	-10.4
C	0
B	-10
Q7602	
E	-9.4
C	-15
B	-10
Q7603	
E	-9.8
C	-0.2
B	-9.4
Q7604	
E	-9.8
C	-14.1
B	-10.5
Q7608	-
Q7609	-
Q7610	-
Q7611	
E	0
C	4.8
B	0

MODE PIN NO.	EE
Q7612	
E	4.8
C	1.1
B	4.8

<BL 2.5>

MODE PIN NO.	EE
Q7501	
E	0
C	4.3
B	0.4
Q7502	
E	0
C	4.3
B	0.4
Q7503	
E	4.4
C	4.3
B	0
Q7504	
E	0
C	0
B	3.0

<CCD>

MODE PIN NO.	EE
IC5001	
1	-7.2
2	-7.2
3	-0.3
4	-0.3
5	0
6	0
7	12
8	15.1
9	13.9
10	8
11	-7.6
12	1.6
13	1.3
14	8
Q5001	
E	11.2
C	15.1
B	12
Q5002	
E	0
C	8
B	0

VICTOR COMPANY OF JAPAN, LIMITED
AV & MULTIMEDIA COMPANY CAMCORDER CATEGORY 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama, kanagawa-prefecture, 221-8528, Japan

(No.86733)

Printed in Japan
200304WPC

PARTS LIST

SAFETY PRECAUTION

Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.

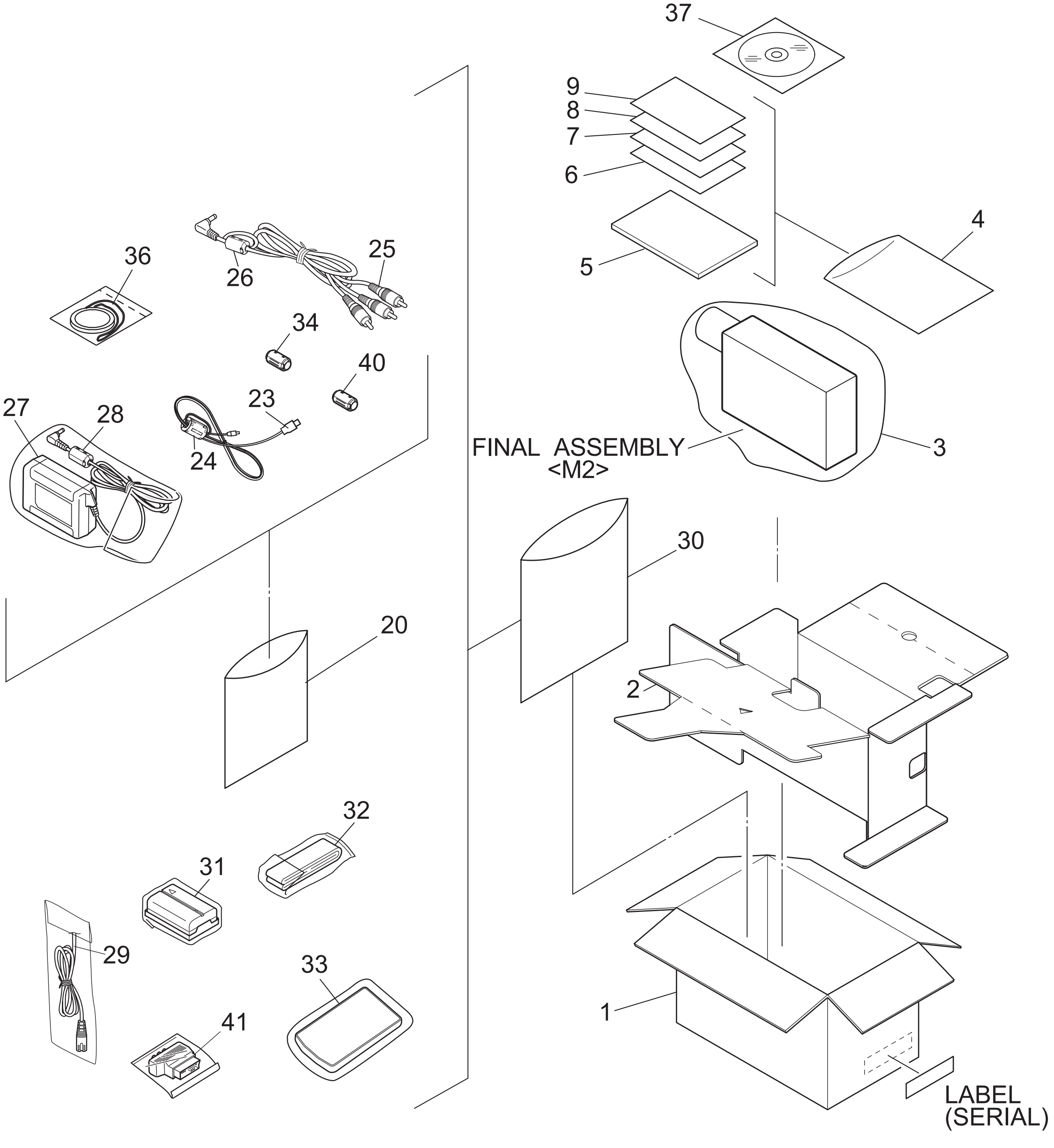
BEWARE OF BOGUS PARTS

Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.

1. EXPLODED VIEW

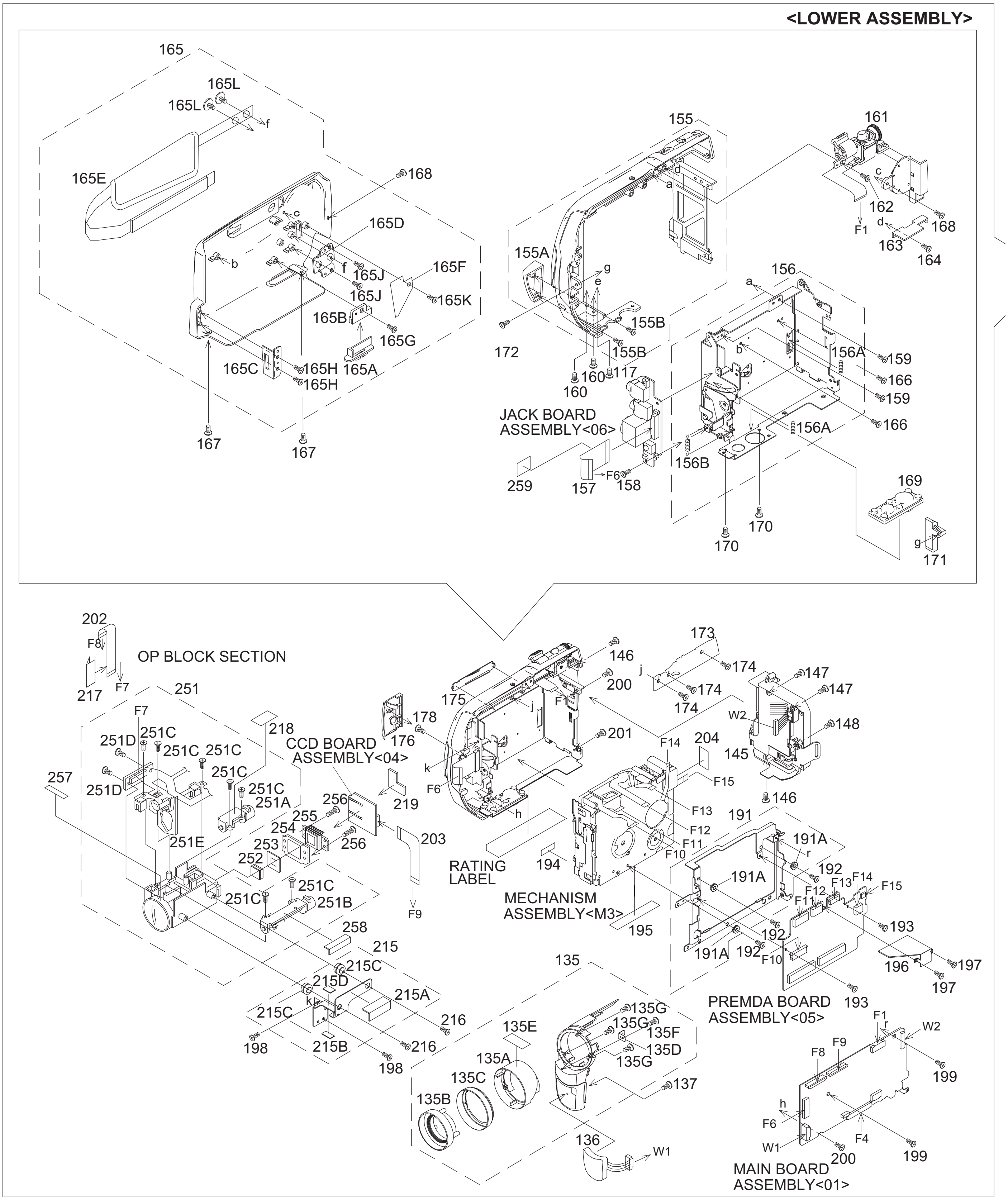
1.1 PACKING AND ACCESSORY ASSEMBLY <M1>

The instruction manual to be provided with this product will differ according to the destination.

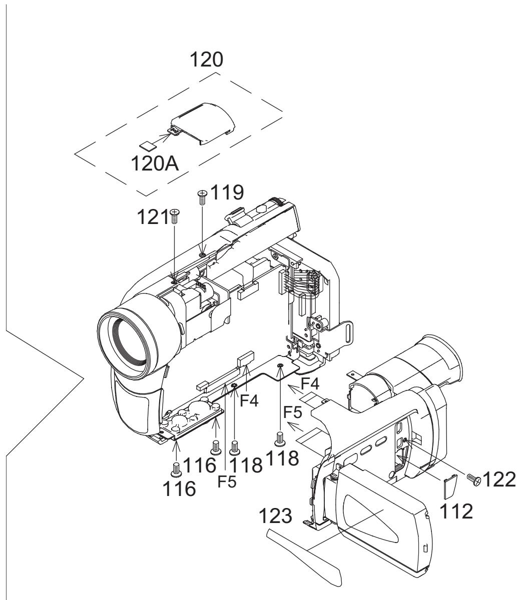


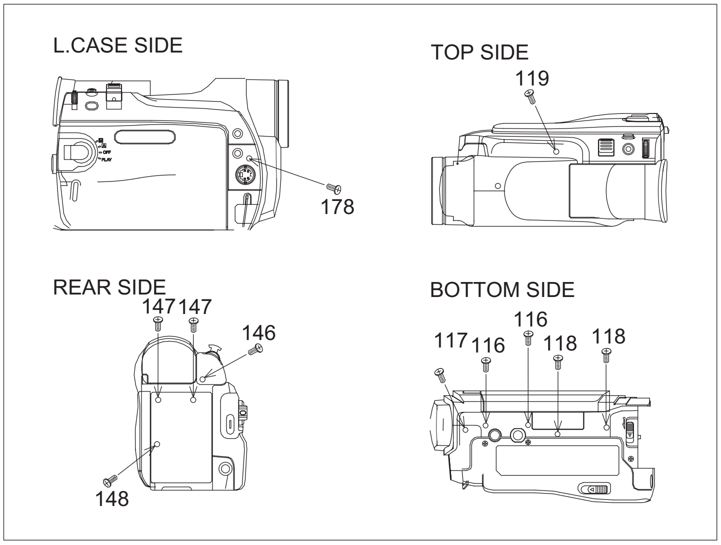
37
9
8
7
6
4
5
36
25
26
34
40
27
28
23
24
FINAL ASSEMBLY
<M2>
3
30
20
2
32
31
29
33
41
1
LABEL
(SERIAL)

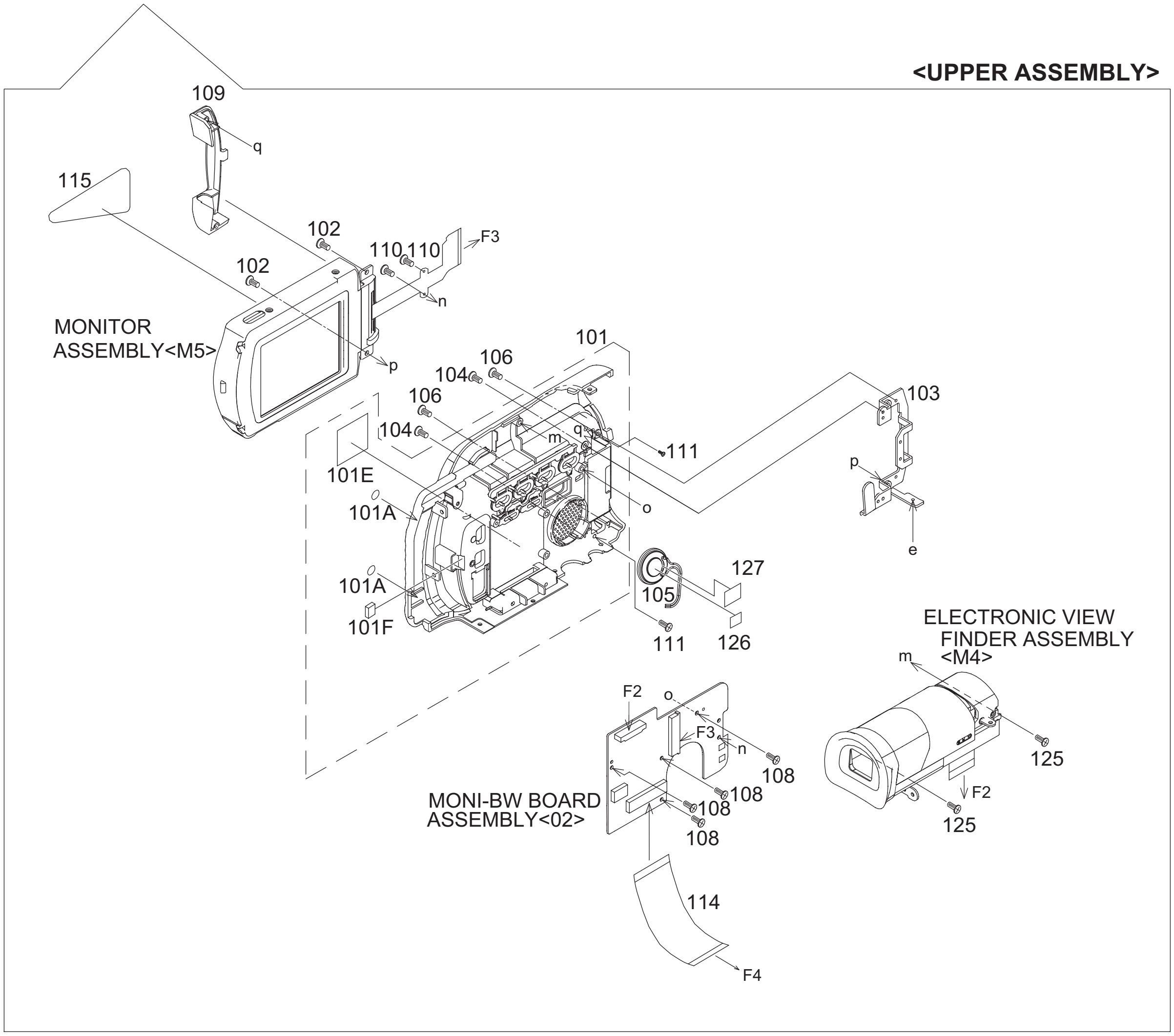
1.2 FINAL ASSEMBLY <M2>



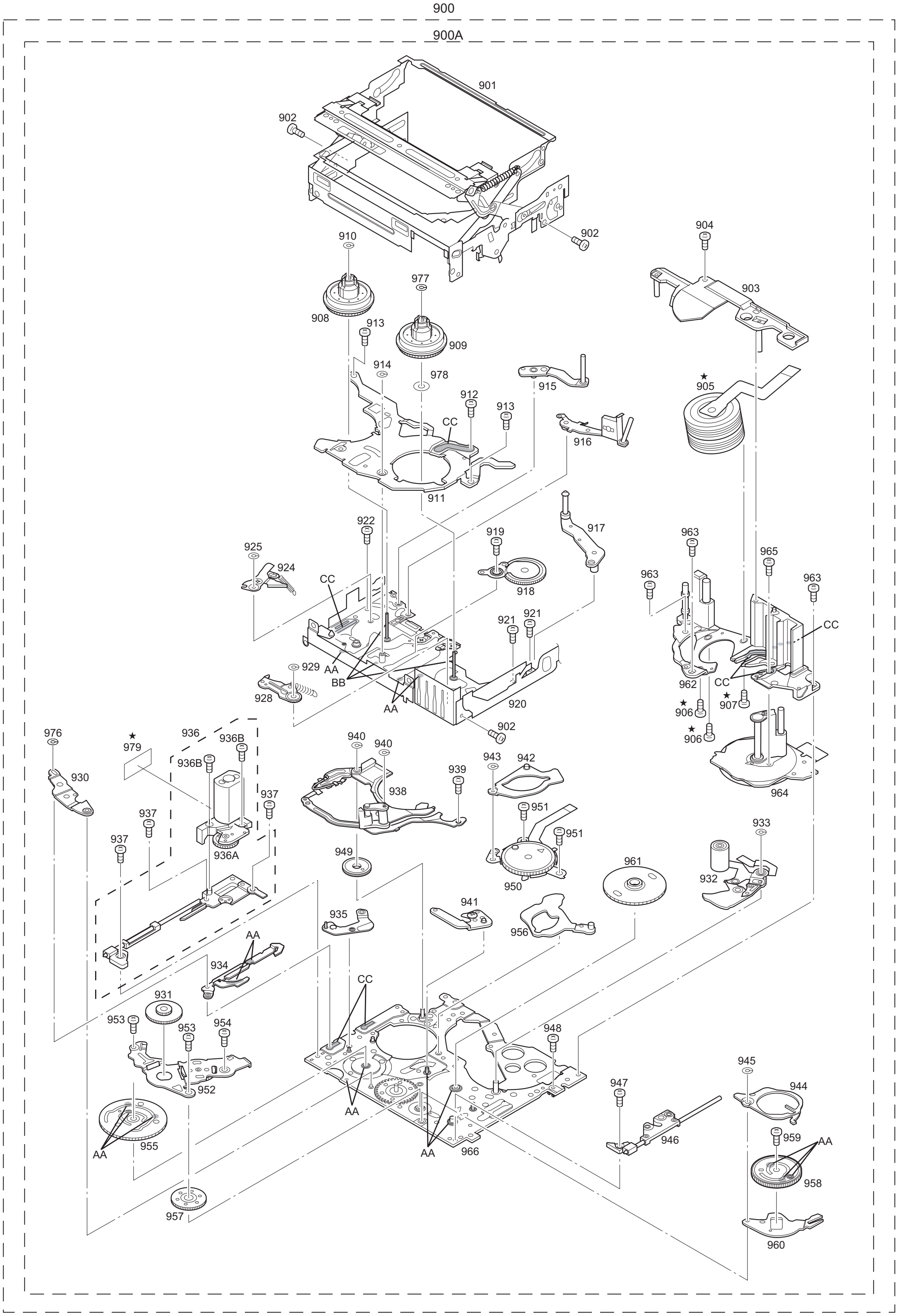
<LOWER ASSEMBLY>
165
165L
165L
f
165E
168
c
165D
b
f
165J
165F
165J
165K
165B
165G
165C
165H
165A
165H
167
167
155
d
a
155A
g
e
155B
172
155B
160
160
117
161
c
162
F1
d
168
163
164
156
a
b
156A
159
166
159
166
156A
JACK BOARD
ASSEMBLY<06>
156B
259
157
F6
158
169
170
170
g
171
202
F8
OP BLOCK SECTION
217
F7
251
F7
218
251D
251C
251C
251C
CCD BOARD
ASSEMBLY<04>
257
251D
251C
251C
251A
256
255
254
256
253
252
251E
251C
251C
251B
258
215
215C
215D
k
215A
215C
216
198
215B
216
198
178
176
175
k
F6
219
203
F9
146
200
F1
j
201
h
RATING
LABEL
194
MECHANISM
ASSEMBLY<M3>
195
173
j
174
174
174
F14
204
F15
F13
F12
F11
F10
147
147
W2
148
145
146
191
191A
r
191A
192
F12
F13
F14
F15
F11
192
191A
192
F10
193
196
197
197
193
PREMDA BOARD
ASSEMBLY<05>
135
135G
135G
135F
135E
135D
135A
135G
135C
137
135B
136
W1
F1
r
W2
F8
F9
199
h
F6
W1
F4
200
199
MAIN BOARD
ASSEMBLY<01>


F4
F4
F5
F5


L.CASE SIDE
TOP SIDE
REAR SIDE
BOTTOM SIDE


<UPPER ASSEMBLY>
109
q
115
102
110
110
F3
102
n
MONITOR
ASSEMBLY<M5>
p
101
106
104
106
104
m
q
111
103
p
101E
101A
o
e
101A
101F
127
105
111
126
ELECTRONIC VIEW
FINDER ASSEMBLY
<M4>
m
F2
o
F3
n
108
125
108
108
108
F2
125
MONI-BW BOARD
ASSEMBLY<02>
114
F4

1.3 MECHANISM ASSEMBLY <M3>

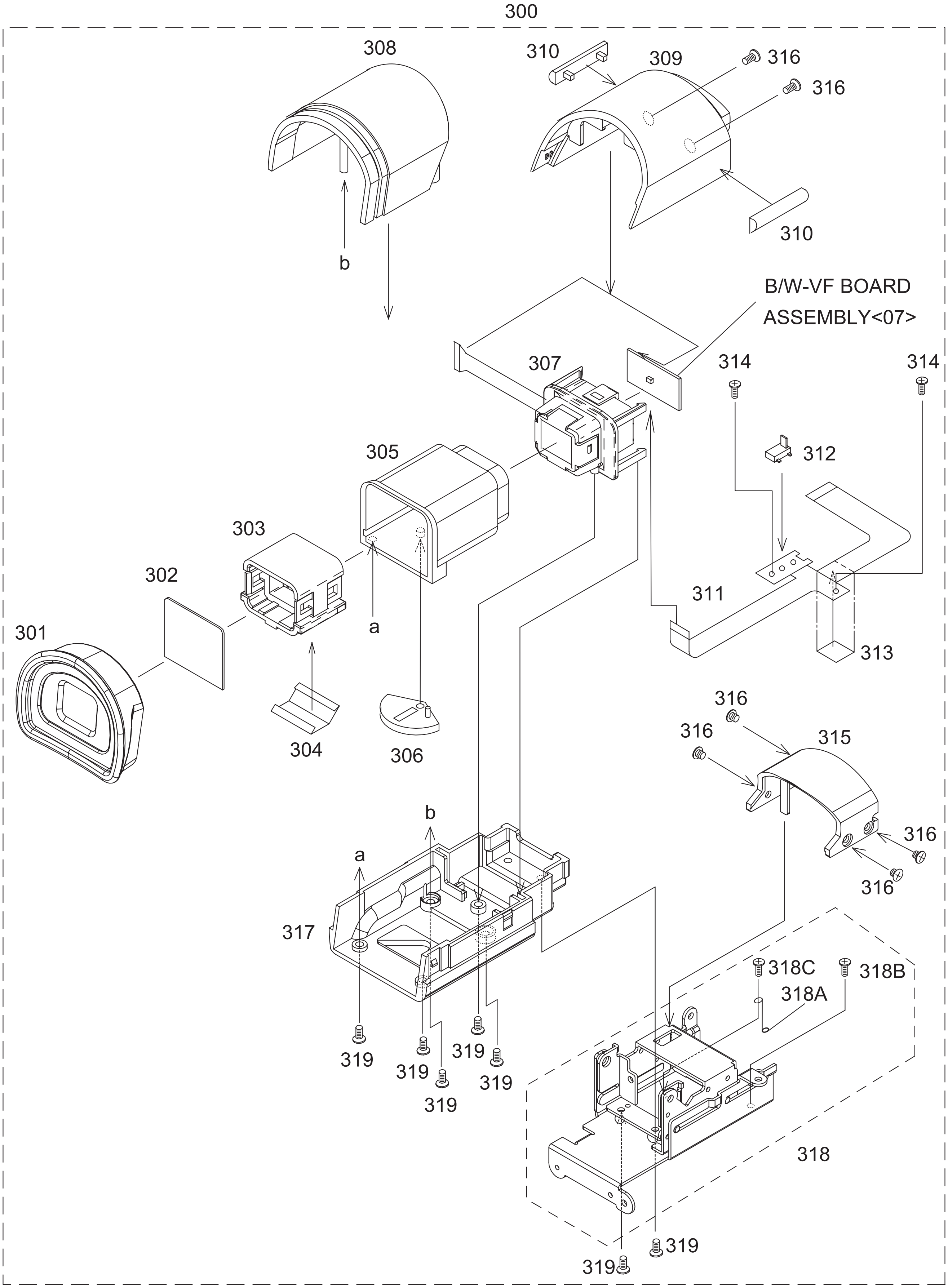

900
900A
901
902
902
904
910
903
977
908
913
909
914
978
915
★
905
912
913
CC
916
911
917
922
919
963
925
924
CC
918
965
963
963
921
921
CC
929
AA
BB
928
962
CC
★
906
★
907
AA
920
902
★
906
976
★
979
936
936B
940
940
936B
943
942
930
939
937
938
951
964
937
951
937
933
936A
949
961
950
932
941
935
956
AA
934
931
CC
953
954
953
948
945
952
947
944
955
AA
AA
966
AA
946
959
AA
958
957
960

Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	YTU94027	BB
Grease (HANARL)	RX-410R	CC

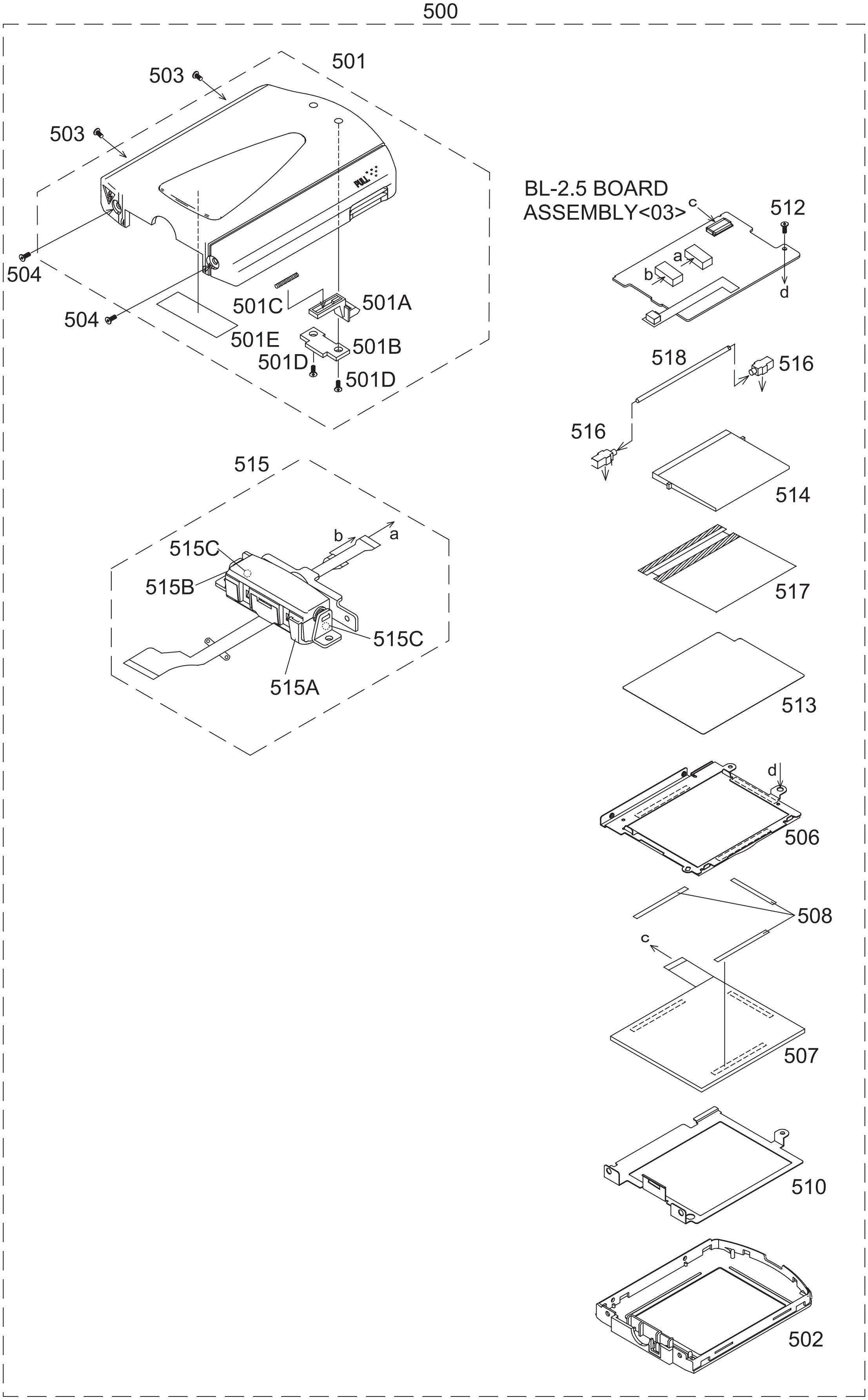
NOTE1: The section marked in **AA** and **BB**, **CC** indicate lubrication and greasing areas.

NOTE2: Mark ★ is not contained in 900A.

1.4 ELECTRONIC VIEWFINDER ASSEMBLY <M4>


300
308
310
309
316
316
310
b
B/W-VF BOARD
ASSEMBLY<07>
307
314
314
305
312
303
302
311
a
301
313
304
306
316
316
315
b
a
316
316
317
318C
318B
318A
319
319
319
319
319
318
319
319

1.5 MONITOR ASSEMBLY (2.5 INCH) <M5>


500
501
503
503
504
504
501C
501A
501E
501B
501D
501D
BL-2.5 BOARD
ASSEMBLY<03>
c
512
a
b
d
518
516
516
515
514
b
a
515C
515B
515C
515A
517
513
d
506
508
c
507
510
502

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

2. PARTS LIST

PACKING AND ACCESSORY ASSEMBLY <M1>

⚠ Symbol No.	Part No.	Part Name	Description	Local
1	LY33063-012A	PACKING CASE		A,B,C,D
1	LY33063-015A	PACKING CASE		E
1	LY33063-003A	PACKING CASE		F,G,H,J
2	LY33065-001B	CUSHION		A,B,C,D,E,F,G
2	LY33065-001C	CUSHION		H,J
3	LY30023-027A	POLY BAG		
4	YQM30061-3	POLY BAG		A,E,F
4	QPA02003506	POLY BAG	20cm x 35cm	B,C,D,G,H,J
⚠ 5	LYT1134-001A	INST BOOK	(ENGLISH)	E
⚠ 5	LYT1098-001A	INST BOOK	(ENGLISH)	A,F
⚠ 5	LYT1098-003A	INST BOOK	(FRENCH)	B,G
⚠ 5	LYT1098-004A	INST BOOK	(DUTCH)	B,G
⚠ 5	LYT1098-005A	INST BOOK	(SPANISH)	B,G
⚠ 5	LYT1098-006A	INST BOOK	(ITALIAN)	B,G
⚠ 5	LYT1098-002A	INST BOOK	(GERMAN)	B,C,G,H
⚠ 5	LYT1098-007A	INST BOOK	(DANISH)	C,H
⚠ 5	LYT1098-008A	INST BOOK	(FINNISH)	C,H
⚠ 5	LYT1098-009A	INST BOOK	(SWEDISH)	C,H
⚠ 5	LYT1098-010A	INST BOOK	(NORWEGIAN)	C,H
⚠ 5	LYT1098-011A	INST BOOK	(RUSSIAN)	D,J
⚠ 5	LYT1098-012A	INST BOOK	(CZECH)	D,J
⚠ 5	LYT1098-013A	INST BOOK	(POLISH)	D,J
⚠ 5	LYT1098-014A	INST BOOK	(HUNGARIAN)	D,J
6	LYT1135-001A	INST BOOK	(SOFT.ENGLISH)	E
6	LYT1086-001A	INST BOOK	(SOFT.ENGLISH)	F
6	LYT1086-003A	INST BOOK	(SOFT.FRENCH)	G
6	LYT1086-004A	INST BOOK	(SOFT.DUTCH)	G
6	LYT1086-005A	INST BOOK	(SOFT.SPANISH)	G
6	LYT1086-006A	INST BOOK	(SOFT.ITALIAN)	G
6	LYT1086-002A	INST BOOK	(SOFT.GERMAN)	G,H
6	LYT1086-007A	INST BOOK	(SOFT.DANISH)	H
6	LYT1086-008A	INST BOOK	(SOFT.FINNISH)	H
6	LYT1086-009A	INST BOOK	(SOFT.SWEDISH)	H
6	LYT1086-010A	INST BOOK	(SOFT.NORWEGIAN)	H
6	LYT1086-011A	INST BOOK	(SOFT.RUSSIAN)	J
7	BT-54008-4	WARRANTY CARD		A,E,F
7	BT-54013-5	WARRANTY CARD		B,C,D,G,H,J
8	YU30878	REGIST. CARD		E,F
9	LYT0194-001B	Q.CARD(JUK)		A,E,F
20	QPA01703005	POLY BAG	17cm x 30cm	
23	QAM0451-001	USB CABLE		F,G,H,J
24	QQR0491-002	FERRITE CORE	TDK (BLACK)	F,G,H,J
25	QAM0212-001	A/V CABLE		
26	QQR0918-002	CORE FILTER		
⚠ 27	LY20955-001C	AC ADAPTER	AP-V13E	
⚠ 27	or LY20956-001B	AC ADAPTER	AP-V11E	
28	QQR0917-002	CORE FILTER		
⚠ 29	QMPP110-190-JR	POWER CORD(EK)	1.9m BLACK	A,E,F
⚠ 29	QMPL120-190-JR	POWER CORD(EU)	1.9m BLACK	B,C,D,G,H,J
30	QPA02503505P	POLY BAG	25cm x 35cm	
⚠ 31	LY32566-001A	BATT.PACK ASSY	BN-V408U-B	
32	LY20186-004A	SHOULDER STRAP		
33	LY21020-001A	REMOCON	RM-V718U	
34	QQR0491-002	FERRITE CORE	TDK (BLACK)	
36	LY44002-001B	CAP(HOOD)ASSY		
37	LY32210-059A	CD ROM ASSY		E
37	LY32210-048A	CD ROM ASSY		F,G,H,J
40	QQR0491-002	FERRITE CORE	TDK (BLACK)	
41	QAM0302-001	ADAPTOR PLUG		

FINAL ASSEMBLY <M2>

⚠ Symbol No.	Part No.	Part Name	Description	Local
101	LY20941-007J	U.CASE(2.5)ASSY		A,B,C,D,E
101	LY20941-003J	U.CASE(2.5)ASSY		F,G,H,J
101A	LY40664-001A	SPACER	(x2)	
101E	LY33042-001A	C.LABEL(VF)		
101F	LY30030-0F2A	SPACER(A)		
102	LY30018-0D6A	SPECIAL SCREW	(x2)	
103	LY33044-001D	BKT(HINGE2.5)		
104	LY30018-096A	SPECIAL SCREW	(x2)	
105	QAS0126-001	SPEAKER		
106	LY30018-017A	SPECIAL SCREW	(x2)	
108	LY30018-059A	SPECIAL SCREW	(x4)	
109	LY33049-002A	COVER(UPPER2.5)		
110	LY30018-056A	SPECIAL SCREW	(x2)	
111	LY30018-0E6A	SPECIAL SCREW	(x2)	
112	LY33050-002C	COVER(JIG)		
114	QUQ105-4007AA	FFC WIRE MONI CN761-MAIN CN101		
115	LY33033-001A	ORNAMENT(2.5 2)		A,B,C,D,E
115	LY33009-001A	ORNAMENT(2.5 1)		F,G,H,J
116	LY30018-0E6A	SPECIAL SCREW	(x2)	
117	LY30018-0A1A	SPECIAL SCREW		
118	LY30018-096A	SPECIAL SCREW	(x2)	
119	LY30018-096A	SPECIAL SCREW		
120	LY33025-001B	TOP COVER ASSY		
120A	LY40162-001A	BKT		
121	LY30018-096A	SPECIAL SCREW		
122	LY30018-096A	SPECIAL SCREW		
123	LY44187-006A	STICKER(2)		A,B,C,D,E
123	LY44187-004A	STICKER(2)		F,G,H,J
125	LY30018-0E6A	SPECIAL SCREW	(x2)	
126	LY30030-0E3B	SPACER(A)		
127	LY30030-0E5A	SPACER(A)		
135	LY20943-002E	F.COVER ASSY		
135A	LY33056-001B	HOOD		
135B	LY33057-001A	RING		
135C	LY33058-001A	HOOD(SCREW)		
135D	LY33059-001B	BKT(FRONT)		
135E	LY44186-002A	STICKER(1)		
135F	LY30018-0E6A	SPECIAL SCREW		
135G	LY30018-052A	SPECIAL SCREW	(x3)	
136	LY20944-001B	MIC		
137	LY30018-0G6A	SPECIAL SCREW		
⚠ 145	LY20938-001E	REAR UNIT		
146	LY30018-0G6A	SPECIAL SCREW	(x2)	
147	LY30018-0J1A	SPECIAL SCREW	(x2)	
148	LY30018-0H3A	SPECIAL SCREW		
155	LY20935-002E	LOWER CASE ASSY		
155A	LY33402-001A	COVER(LOWER)		
155B	LY30018-0E6A	SPECIAL SCREW	(x2)	
156	LY20939-001F	ARM ASSY		
156A	LY30002-046B	COMPRES. SPRING	(x2)	
156B	LY43973-001A	TENSION SPRING		
157	QUQ105-2203AA	FFC WIRE JACK CN501-MAIN CN102		
158	LY30018-096A	SPECIAL SCREW		
159	LY30018-059A	SPECIAL SCREW	(x2)	
160	LY30018-096A	SPECIAL SCREW	(x2)	
161	LY10453-001E	ZOOM UNIT		
162	LY30018-0E6A	SPECIAL SCREW		
163	LY33395-001A	BRACKET(ZOOM)		
164	LY30018-059A	SPECIAL SCREW		
165	LY20937-003B	C.COVER ASSY		
165A	LY33027-001B	KNOB(LOCK)		
165B	LY33028-001A	HOLDER(LOCK)		
165C	LY33397-001A	HOOK(G.B)		
165D	LY33039-001A	BKT(G.BELT)		
165E	LY20945-003A	GRIP BELT		
165F	LY44178-001A	SHEET(C.COV)		
165G	LY30018-0E6A	SPECIAL SCREW		
165H	QYSLSF2040D	TAP SCREW	2mm x 4mm(x2)	
165J	QYSLSF2040D	TAP SCREW	2mm x 4mm(x2)	
165K	QYSLSF2040D	TAP SCREW	2mm x 4mm	
165L	LY30018-0H1A	SPECIAL SCREW	(x2)	
166	LY30018-0K3A	SPECIAL SCREW	(x2)	
167	LY30018-096A	SPECIAL SCREW	(x2)	
168	LY30018-059A	SPECIAL SCREW	(x2)	
169	LY31019-001A	BASE		
170	LY30018-0E6A	SPECIAL SCREW	(x2)	
171	LY33396-001B	HOLDER(JACK)		
172	LY30018-0E6A	SPECIAL SCREW		
173	LY33037-001B	COVER(ZOOM)		
174	LY30018-084A	SPECIAL SCREW	(x3)	
175	LY33029-001B	COVER(ADJUST)		
176	LY33024-001C	COVER(JACK)		
178	LY30018-017A	SPECIAL SCREW		
191	LY33019-001B	BKT(MECHA)ASSY		

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
191A	LY42796-003A	BUSH	(x3)	
192	LY30019-028A	SPECIAL SCREW	(x3)	
193	LY30018-056A	SPECIAL SCREW	(x2)	
194	LY40699-002A	LABEL(PUSH)		
195	LY32001-002A	LABEL(HOUSING)		
196	LY33388-001C	SHIELD COVER(PR)		
197	QYSPSPT1414M	SCREW	1.4mm x 1.4mm(x2)	
198	LY30018-096A	SPECIAL SCREW	(x2)	
199	LY30019-038A	SPECIAL SCREW	(x2)	
200	LY30018-096A	SPECIAL SCREW	(x2)	
201	LY30018-017A	SPECIAL SCREW		
202	QUQ105-24X8AA	FPC WIRE OP BLOCK-MAIN CN108		
203	QAL0465-001	FPC CCD CN5001-MAIN CN107		
215	LY43965-001D	BKT(OP)ASSY		
215A	LY30030-095A	SPACER(A)		
215B	LY30030-096A	SPACER(A)		
215C	LY43966-001A	RUBBER(OP)	(x2)	
215D	LY30030-0E5A	SPACER(A)		
216	LY30018-0G9A	SPECIAL SCREW	(x2)	
217	LY30030-057A	SPACER(A)		
218	LY30030-050A	SPACER(A)		
219	LY30030-060A	SPACER(A)		
251	LY33085-001F	OP BLOCK ASSY		
251A	LY30724-001B	FOCUS MOTOR		
251B	LY30723-001B	ZOOM MOTOR		
251C	PTY33085-001	SCREW	(x7)	
251D	PTY31727-116	SCREW	(x2)	
251E	PTY33085-007	IRIS MOTOR UNIT		
252	LY44120-001A	OP LPF		
253	LY44005-001A	SHEET		
254	LY33288-001A	SPACER		
255	LYH30446-002A	CCD BASE ASSY		
256	LY30018-0E7A	SPECIAL SCREW	(x2)	
257	LY30030-093A	SPACER(A)		
258	LY30030-094A	SPACER(A)		
259	LY30029-0Q7A	SPACER(A)		

MECHANISM ASSEMBLY <M3>

⚠ Symbol No.	Part No.	Part Name	Description	Local
900	YMA0029H	MECHA(A)ASSY		
900A	YMA0029D	MECHA(A)ASSY		
901	LY32870-001G	CASSETTEHOUSING ASSY		
902	YQ43893-8	MINI SCREW	(x3)	
903	LYH30420-001A	UPPER BASE ASSY		
904	QYSPSPU1425M	SCREW		
905	YDV2102B	DRUM ASSY		
906	LY42820-001A	DAMP.SCREW ASSY	(x2)	
907	LY42820-002A	DAMP.SCREW ASSY		
908	LY31538-001F	REEL DISK ASSY		
909	LY31538-002H	REEL DISK ASSY		
910	YQ44246	SLIT WASHER		
911	LY10372-001D	REEL COVER ASSY		
912	LY42120-002A	MINI SCREW		
913	LY41945-003A	MINI SCREW	(x2)	
914	YQ44246	SLIT WASHER		
915	LY43725-001D	TENSION ARM ASSY		
916	LYH40269-001A	SLANT POLE ARM ASSY		
917	LY43731-001F	TU ARM ASSY		
918	LY31531-001D	SWING ARM ASSY		
919	YQ43893	MINI SCREW		
920	LYH30424-001A	SLIDE DECK FINAL ASSY		
921	YQ43893	MINI SCREW	(x2)	
922	LY43023-001A	MINI SCREW		
924	LYH30419-001A	PAD ARM ASSY		
925	YQ44246	SLIT WASHER		
928	LYH40270-001A	TU BRAKE ASSY		
929	YQ44246	SLIT WASHER		
930	LY43684-001A	TENSION CONTROL LEVER ASSY		
931	LY32861-001A	CENTER GEAR		
932	LY31516-001F	PINCH ROLLER ARM FINAL ASSY		
933	YQ44246	SLIT WASHER		
934	LY43681-001A	TENSION CONTROL PLATE ASSY		
935	LY43687-001A	BRAKE CONTROL LEVER ASSY		
936	LYH30421-001A	MOTOR BRACKET ASSY		
936A	QAR0138-001	LOADING MOTOR		
936B	LY41940-001A	TAPPING SCREW	(x2)	
937	YQ43893	MINI SCREW	(x3)	
938	LYH30422-001A	GUIDE RAIL ASSY		
939	YQ43893	MINI SCREW		
940	YQ44246	SLIT WASHER	(x2)	
941	LY32843-001A	SLIDE LEVER2 ASSY		
942	LY43690-001A	LOADING PLATE ASSY		
943	YQ44246	SLIT WASHER		
944	LY32858-001A	EJECT LEVER		
945	YQ44246	SLIT WASHER		
946	LYH40271-001A	BASE R ASSY		
947	YQ43893	MINI SCREW		
948	LY41945-001B	MINI SCREW		
949	LY43665-001A	MODE GEAR		
950	QSW0876-003	ROTARY ENCODER		
951	YQ43893	MINI SCREW	(x2)	
952	LY32860-001A	GEAR COVER ASSY		
953	YQ43893	MINI SCREW	(x2)	
954	YQ43893-4	MINI SCREW		
955	LY43676-001A	MAIN CAM ASSY		
956	LY41941-001B	SLIDE ARM ASSY		
957	LY43678-001A	CONNECT GEAR 2		
958	LY41954-001C	SUB CAM ASSY		
959	LY42120-001A	MINI SCREW		
960	LY43692-001A	CONTROL ARM ASSY		
961	LY32859-001A	REEL GEAR 1		
962	LY31508-002B	DRUM BASE ASSY		
963	QYSPSPU1425M	SCREW	1.4mm x 2.5mm(x3)	
964	QAR0142-001	CAPSTAN MOTOR		
965	YQ43893	MINI SCREW		
966	LY10367-001D	MAIN DECK ASSY		
976	YQ44246	SLIT WASHER		
977	YQ44246-6	SLIT WASHER		
978	LY42047-005A	WASHER		
979	LY43987-001B	SPACER		

ELECTRONIC VIEWFINDER ASSEMBLY<M4>

⚠ Symbol No.	Part No.	Part Name	Description	Local
300	LY21043-001E	VF ASSY		
301	LY32995-001B	EYE CUP		
302	LY43961-001B	SHEET(LENS)		
303	LY32472-001A	LENS ASSY		
304	LY43868-001A	SPRING(LENS)		
305	LY32993-001C	GUIDE LENS(VF)		
306	LY33006-001C	LEVER(LENS)		
307	LY33442-001B	LCD UNIT ASSY		
308	LY20931-001B	U.CASE(VF)R		
309	LY20930-001B	U.CASE(VF)F		
310	LY33083-001A	PROTECTOR(VF)	(x2)	
311	QAL0466-002	FPC		
312	NSW0200-001X	LEVER SWITCH VF SW		
313	LY30030-059B	SPACER(A)		
314	LY30018-031A	SPECIAL SCREW	(x2)	
315	LY32996-001B	COVER(VF)		
316	LY30018-022A	SPECIAL SCREW	(x6)	
317	LY20929-001C	B.CASE(VF)		
318	LY33076-001E	VF HINGE ASSY		
318A	LY43962-001C	TOR.SPRING		
318B	LY30019-048A	SPECIAL SCREW		
319	LY30018-084A	SPECIAL SCREW	(x7)	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

MONITOR ASSEMBLY (2.5 INCH) <M5>

⚠ Symbol No.	Part No.	Part Name	Description	Local
500	LY21042-004B	MONITOR ASSY		
501	LY20932-003E	M.COVER(2.5)ASSY		
501A	LY33007-001C	KNOB(LOCK)M		
501B	LY33008-001A	HOLDER(LOCK)M		
501C	LY30002-047A	COMPRES. SPRING		
501D	LY30018-0C8A	SPECIAL SCREW	(x2)	
501E	LY30030-0E5A	SPACER(A)		
502	LY10407-001C	MONI.CASE(2.5)		
503	QYSPSPT1730R	SCREW	1.7mm x 3mm(x2)	
504	LY30018-0K9A	SPECIAL SCREW	(x2)	
506	LY33011-001C	LCD FRAME(2.5)		
507	QLD0262-001	LCD MODULE		
508	LY30029-0R5A	SPACER(A)	(x3)	
510	LY33010-001A	SHIELD CASE(2.5)		
512	QYSPSPT1720R	SCREW	1.7mm x 2mm	
513	LY33012-001A	DIFF.SHEET(2.5)		
514	LY43938-001A	LIGHT SCREEN		
515	LY33013-003B	MONI.HINGE ASSY		
515A	LY33015-002A	HINGE COVER(U)		
515B	LY32969-002A	HINGE COVER(L)		
515C	LY30018-0K1A	SPECIAL SCREW	(x2)	
516	LY43936-001A	HOLDER(LAMP)	(x2)	
517	LY43396-001A	SHEET(REFLECT)		
518	QLL0142-001	LAMP		

MAIN BOARD ASSEMBLY <01>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB10404J-02	MAIN BOARD ASSY		A,B,C,D,E
PW1	YB10404K-02	MAIN BOARD ASSY		F,G,H,J
IC1001	MN103S33NJD	IC(MICRO C ROM)		
IC1001 or	MN103SF33NY4JD	IC(MICRO C ROM)		
IC1002	MB90097PFV149-X	IC(MICRO C ROM)		
IC1003	SN74AHC1G00K-X	IC		
IC1003 or	SN74AHC1G00DC-X	IC		
IC1004	S-89220ACNC-W	IC		
IC1005	X25330S8I-2.5-X	IC		
IC1005 or	AT25320N-10SI-X	IC		
IC1005 or	M95320-WMN6-X	IC		
IC1005 or	25LC320-I/SN-X	IC		
IC1005 or	CAT25C32SI-X	IC		
IC1006	RS5C314-X	IC		
IC1007	IC-PST3423U-X	IC		
IC1007 or	S-80823CNNB-X	IC		
IC2101	AK5355VT-X	IC		F,G,H,J
IC2201	AK4564VQ	IC		
IC3001	JCY0152	IC		
IC3002	BU2501FV-X	IC		
IC3005	JCY0136-X	IC		
IC3701	BA7665FS-X	IC		
IC3851	JCP8055FP	IC		
IC4201	HD49340NP-X	IC		
IC4202	MM1613AN-X	IC		
IC4301	JCY0200	IC		
IC4302	R1160N151B-X	IC		
IC4802	BA10358FVM-W	IC		
IC4803	BA10358FVM-W	IC		
IC4804	UPC358G2/5/-W	IC		
IC4851	UPD16879GS-X	IC		
IC5501	JCY0185	IC		
IC6001	FA3698F	IC		
IC6801	R1224N102G-X	IC		
IC8701	PIX-MC10	IC		F,G,H,J
IC8702	MT48LC1M16TG-6S	IC		F,G,H,J
Q1001	DTA114EE-X	DIGI TRANSISTOR		
Q1001 or	PDTA114EE-X	DIGI TRANSISTOR		
Q1001 or	RN2102-X	DIGI TRANSISTOR		
Q1001 or	BCR183T-X	DIGI TRANSISTOR		
Q1002	UMC3N-W	DIGI TRANSISTOR		
Q1003	UMC3N-W	DIGI TRANSISTOR		
Q1004	UMC3N-W	DIGI TRANSISTOR		
Q1005	DTC143XE-X	DIGI TRANSISTOR		
Q1006	UMC3N-W	DIGI TRANSISTOR		
Q1007	2SC4617/QR/-X	TRANSISTOR		
Q1007 or	BC847BT-X	TRANSISTOR		
Q1008	DTC124EE-X	DIGI TRANSISTOR		
Q1008 or	PDTC124EE-X	DIGI TRANSISTOR		
Q1008 or	BCR141T-X	DIGI TRANSISTOR		
Q1009	2SJ347-X	MOS FET		
Q2001	UMX1N-W	PAIR TRANSISTOR		
Q2001 or	BC847S-X	PAIR TRANSISTOR		
Q2002	UMX1N-W	PAIR TRANSISTOR		
Q2002 or	BC847S-X	PAIR TRANSISTOR		
Q2003	UMX1N-W	PAIR TRANSISTOR		
Q2003 or	BC847S-X	PAIR TRANSISTOR		
Q2004	UMX1N-W	PAIR TRANSISTOR		
Q2004 or	BC847S-X	PAIR TRANSISTOR		
Q2005	UMX1N-W	PAIR TRANSISTOR		
Q2005 or	BC847S-X	PAIR TRANSISTOR		
Q2006	UMX1N-W	PAIR TRANSISTOR		
Q2006 or	BC847S-X	PAIR TRANSISTOR		
Q2202	UMX1N-W	PAIR TRANSISTOR		
Q2202 or	BC847S-X	PAIR TRANSISTOR		
Q2401	2SC4617/QR/-X	TRANSISTOR		
Q2401 or	BC847BT-X	TRANSISTOR		
Q2403	2SC4617/QR/-X	TRANSISTOR		
Q2403 or	BC847BT-X	TRANSISTOR		
Q3001	2SC4617/RS/-X	TRANSISTOR		
Q3001 or	BC847BT-X	TRANSISTOR		
Q3002	2SC4617/RS/-X	TRANSISTOR		
Q3002 or	BC847BT-X	TRANSISTOR		
Q3701	UMT1N-W	PAIR TRANSISTOR		

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
Q3701 or	XP4401-W	TRANSISTOR		
Q3701 or	BC856S-X	PAIR TRANSISTOR		
Q3702	UMZ1N-W	PAIR TRANSISTOR		
Q3702 or	XP4601-W	TRANSISTOR		
Q3704	2SA1774/RS/-X	TRANSISTOR		
Q3704 or	BC857BT-X	TRANSISTOR		
Q3705	UMT1N-W	PAIR TRANSISTOR		
Q3705 or	XP4401-W	TRANSISTOR		
Q3705 or	BC856S-X	PAIR TRANSISTOR		
Q4801	2SC4655/BC/-X	TRANSISTOR		
Q4806	2SC4617/QR/-X	TRANSISTOR		
Q4806 or	BC847BT-X	TRANSISTOR		
Q4851	2SC4617/RS/-X	TRANSISTOR		
Q4851 or	BC847BT-X	TRANSISTOR		
Q6101	SSM5G01TU-X	MOS FET		
Q6102	2SA1577/QR/-X	TRANSISTOR		
Q6102 or	BC807-25W-X	TRANSISTOR		
Q6201	SSM5G01TU-X	MOS FET		
Q6301	SSM5G01TU-X	MOS FET		
Q6302	2SA1577/QR/-X	TRANSISTOR		
Q6302 or	BC807-25W-X	TRANSISTOR		
Q6303	2SC4617/QR/-X	TRANSISTOR		
Q6303 or	BC847BT-X	TRANSISTOR		
Q6401	SSM5G01TU-X	MOS FET		
Q6501	SSM5G01TU-X	MOS FET		
Q6601	CPH3314-X	MOS FET		
Q6602	UMX1N-W	PAIR TRANSISTOR		
Q6602 or	HN1C01FU/G/-X	PAIR TRANSISTOR		
Q6602 or	BC847S-X	PAIR TRANSISTOR		
Q6603	2SA1577/QR/-X	TRANSISTOR		
Q6603 or	BC807-25W-X	TRANSISTOR		
Q6604	DTC144EE-X	DIGI TRANSISTOR		
Q6604 or	BCR148T-X	DIGI TRANSISTOR		
Q6605	UMT1N-W	PAIR TRANSISTOR		
Q6605 or	HN1A01FU/G/-X	PAIR TRANSISTOR		
Q6605 or	BC856S-X	PAIR TRANSISTOR		
Q6606	2SC4617/QR/-X	TRANSISTOR		
Q6606 or	BC847BT-X	TRANSISTOR		
Q6701	CPH3314-X	MOS FET		
Q6801	FML9-W	TRANSISTOR		
D1001	DA221-X	DIODE ARRAY		
D3001	EC2C01C-X	VARI CAP DIODE		
D3002	EC2C01C-X	VARI CAP DIODE		
D3003	EC2C01C-X	VARI CAP DIODE		
D3004	MA2Z720-X	SB DIODE		
D5501	1SS355-X	SI DIODE		
D6601	RB481K-X	SB DIODE		
D6602	RB480Y-W	SB DIODE		
D6701	RB160M-30-X	SB DIODE		
D6702	RB160M-30-X	SB DIODE		
⚠ D6801	RB715F-X	SB DIODE		
D8702	EMZ6.8N-X	Z DIODE		F,G,H,J
D8703	EMZ6.8N-X	Z DIODE		F,G,H,J
C1001	NDCA1HJ-8R0W	C CAPACITOR	8pF 50V J	
C1002	NDCA1HJ-100W	C CAPACITOR	10pF 50V J	
C1004	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1005	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1007	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1008	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1009	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1010	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1011	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1012	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1013	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1014	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1015	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1019	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1020	NCBA1EK-682W	C CAPACITOR	6800pF 25V K	
C1021	NCBA1EK-682W	C CAPACITOR	6800pF 25V K	
C1022	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1024	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1025	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1029	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1030	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C1032	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1035	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	

⚠ Symbol No.	Part No.	Part Name	Description	Local
C1036	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1037	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1038	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1039	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1040	NDCA1HJ-100W	C CAPACITOR	10pF 50V J	
C1041	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1042	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1043	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1044	NDCA1HJ-470W	C CAPACITOR	47pF 50V J	
C1045	NDCA1HJ-470W	C CAPACITOR	47pF 50V J	
C1046	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C1047	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1048	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1049	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1050	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1051	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C1052	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C1053	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C1054	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C1055	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1064	NBE20JM-226X	TA E CAPACITOR	22uF 6.3V M	
C2105	NCBA1HK-222W	C CAPACITOR	2200pF 50V K	F,G,H,J
C2106	NCBA1HK-222W	C CAPACITOR	2200pF 50V K	F,G,H,J
C2107	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	F,G,H,J
C2108	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C2109	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C2110	NBE20JM-475X	TA E CAPACITOR	4.7uF 6.3V M	F,G,H,J
C2201	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2202	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2203	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2204	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2205	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2209	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2210	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2211	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2212	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2213	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2214	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2215	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2216	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2217	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2218	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2223	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2224	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2401	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2402	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2403	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2404	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2405	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2406	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2603	NCBA1CK-153W	C CAPACITOR	0.015uF 16V K	
C2604	NCBA1CK-153W	C CAPACITOR	0.015uF 16V K	
C2605	NCBA1EK-472W	C CAPACITOR	4700pF 25V K	
C2606	NCBA1EK-472W	C CAPACITOR	4700pF 25V K	
C2607	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C2608	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C2611	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2612	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2613	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2614	NDCA1HJ-101W	C CAPACITOR	100pF 50V J	
C2615	NDCA1HJ-101W	C CAPACITOR	100pF 50V J	
C3001	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3003	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3005	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3006	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3007	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C3008	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3009	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3011	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3012	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3013	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3015	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3016	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3017	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3020	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3021	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3022	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3023	NDCA1HJ-330W	C CAPACITOR	33pF 50V J	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
C3024	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C3025	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3026	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3027	NCBA1EK-472W	C CAPACITOR	4700pF 25V K	
C3028	NDCA1EJ-271W	C CAPACITOR	270pF 25V J	
C3029	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3030	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3031	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3032	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C3033	NDCA1HJ-220W	C CAPACITOR	22pF 50V J	
C3036	NDCA1HJ-8R0W	C CAPACITOR	8pF 50V J	
C3037	NDCA1HJ-8R0W	C CAPACITOR	8pF 50V J	
C3038	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3039	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3042	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3043	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3044	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3045	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3046	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3047	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3048	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C3049	NCBA1HK-222W	C CAPACITOR	2200pF 50V K	
C3050	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3055	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3059	NBE20GM-226X	TA E CAPACITOR	22uF 4V M	
C3060	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3064	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C3066	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3067	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C3069	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3701	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3702	NDCA1HJ-560W	C CAPACITOR	56pF 50V J	
C3703	NDCA1HJ-270W	C CAPACITOR	27pF 50V J	
C3704	NDCA1HJ-680W	C CAPACITOR	68pF 50V J	
C3705	NDCA1HJ-270W	C CAPACITOR	27pF 50V J	
C3706	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3707	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3708	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3709	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3712	NEA70GM-337X	E CAPACITOR	330uF 4V M	
C3713	NEA70GM-337X	E CAPACITOR	330uF 4V M	
C3715	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3801	NCB21AK-105X	C CAPACITOR	1uF 10V K	
C3802	NCB21AK-105X	C CAPACITOR	1uF 10V K	
C3803	NBE20GM-476X	TA E CAPACITOR	47uF 4V M	
C3804	NBE20GM-476X	TA E CAPACITOR	47uF 4V M	
C3851	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3852	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3853	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3854	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3855	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3856	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3857	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3858	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3859	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3860	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3861	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4201	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C4202	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4203	NCB21AK-105X	C CAPACITOR	1uF 10V K	
C4204	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4205	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4206	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C4207	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4208	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C4209	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4210	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4211	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4212	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4213	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4214	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4216	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4301	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4302	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4303	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4304	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4305	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4306	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	

⚠ Symbol No.	Part No.	Part Name	Description	Local
C4307	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4308	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4309	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4310	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4311	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4312	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4313	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C4314	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4315	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4316	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4317	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4803	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C4804	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4806	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4808	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C4809	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4810	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4811	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4812	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4813	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4814	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4815	NCB31HK-152X	C CAPACITOR	1500pF 50V K	
C4819	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C4851	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C4852	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4853	NBE21AM-335X	TA E CAPACITOR	3.3uF 10V M	
C4854	NBE21AM-106X	TA E CAPACITOR	10uF 10V M	
C4855	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C4858	NDCA1HJ-330W	C CAPACITOR	33pF 50V J	
C4859	NCBA1CK-223W	C CAPACITOR	0.022uF 16V K	
C4860	NCBA1CK-223W	C CAPACITOR	0.022uF 16V K	
C4861	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4862	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4864	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C4865	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5501	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5503	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5504	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5506	NBE40GM-476X	TA E CAPACITOR	47uF 4V M	
C5507	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5508	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5509	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5510	NBP21VM-105X	TA E CAPACITOR	1uF 35V M	
C5511	NBZ0003-475X	TA E CAPACITOR	4.7uF 20V M	
C5512	NBE21AM-106X	TA E CAPACITOR	10uF 10V M	
C5513	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5514	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5515	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5516	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5517	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5518	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5519	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C6002	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6003	NEA71CM-106X	E CAPACITOR	10uF 16V M	
C6004	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6021	NCB21CK-104X	C CAPACITOR	0.1uF 16V K	
C6022	NCB21CK-104X	C CAPACITOR	0.1uF 16V K	
C6023	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6024	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6025	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6026	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6027	NCBA1EK-472W	C CAPACITOR	4700pF 25V K	
C6029	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6030	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6031	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6032	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6033	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C6034	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C6035	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C6036	NDCA1HJ-101W	C CAPACITOR	100pF 50V J	
C6037	NCB21CK-473X	C CAPACITOR	0.047uF 16V K	
C6038	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C6039	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C6040	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C6041	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C6042	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C6043	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C6044	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
C6045	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6101	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6103	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C6104	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6105	NCBA1HK-561W	C CAPACITOR	560pF 50V K	
C6106	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6201	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6203	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C6204	NCBA1EK-472W	C CAPACITOR	4700pF 25V K	
C6301	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6303	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C6304	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6401	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6403	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6405	NCB31CK-683X	C CAPACITOR	0.068uF 16V K	
C6501	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6503	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6505	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6601	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6602	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6603	NCB11EK-105X	C CAPACITOR	1uF 25V K	
C6605	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6606	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6607	NCB11EK-105X	C CAPACITOR	1uF 25V K	
C6608	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C6609	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6701	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6703	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6801	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6802	NBE40JM-476X	TA E CAPACITOR	47uF 6.3V M	
C6804	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6807	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C6809	NDCA1HJ-151W	C CAPACITOR	150pF 50V J	
C8701	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	F,G,H,J
C8702	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	F,G,H,J
C8703	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8704	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8705	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8706	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8707	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8708	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8709	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8710	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8711	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8712	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8719	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
R1001	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R1002	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1003	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1006	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1007	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R1008	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1009	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1010	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R1011	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1012	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1013	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1014	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1015	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1016	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1017	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R1018	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R1019	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1020	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1021	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1022	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1023	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1024	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1025	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1027	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R1030	NRSA6AJ-753W	MG RESISTOR	75kΩ 1/16W J	
R1031	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	
R1032	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1033	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1034	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1035	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1037	NRSA6AJ-561W	MG RESISTOR	560Ω 1/16W J	
R1038	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1039	NRSA6AJ-152W	MG RESISTOR	1.5kΩ 1/16W J	
R1040	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1041	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R1042	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R1043	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1044	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1045	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R1046	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1047	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1048	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1049	NRSA6AJ-623W	MG RESISTOR	62kΩ 1/16W J	
R1050	NRSA6AJ-823W	MG RESISTOR	82kΩ 1/16W J	
R1051	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R1052	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1053	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R1054	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1055	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	
R1056	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	
R1057	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1058	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1059	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1060	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1061	NRSA6AJ-561W	MG RESISTOR	560Ω 1/16W J	
R1062	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	
R1063	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R1064	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1065	NRSA6AJ-153W	MG RESISTOR	15kΩ 1/16W J	
R1066	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1067	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	
R1068	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1069	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1070	NRSA6AJ-154W	MG RESISTOR	150kΩ 1/16W J	
R1071	NRSA6AJ-272W	MG RESISTOR	2.7kΩ 1/16W J	
R1072	NRSA6AJ-183W	MG RESISTOR	18kΩ 1/16W J	
R1073	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1074	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R1075	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R1076	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R1077	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1078	NRSA6AJ-393W	MG RESISTOR	39kΩ 1/16W J	
R1079	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R1080	NRSA6AJ-822W	MG RESISTOR	8.2kΩ 1/16W J	
R1081	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1082	NRSA6AJ-123W	MG RESISTOR	12kΩ 1/16W J	
R1083	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1084	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1085	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1086	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1087	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1088	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1089	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1091	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1092	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1093	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1094	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1095	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1096	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1097	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1099	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R2001	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2002	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2003	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2004	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2005	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2006	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2007	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2008	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2009	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2010	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2011	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2012	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2101	NRSA6AJ-471W	MG RESISTOR	470Ω 1/16W J	F,G,H,J
R2102	NRSA6AJ-471W	MG RESISTOR	470Ω 1/16W J	F,G,H,J
R2105	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R2107	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R2108	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R2109	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
R2110	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R2201	NRSA6AJ-684W	MG RESISTOR	680kΩ 1/16W J	
R2202	NRSA6AJ-564W	MG RESISTOR	560kΩ 1/16W J	
R2203	NRSA6AJ-393W	MG RESISTOR	39kΩ 1/16W J	
R2204	NRSA6AJ-154W	MG RESISTOR	150kΩ 1/16W J	
R2206	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R2207	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R2208	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R2209	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R2210	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2211	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2212	NRSA6AJ-2R7W	MG RESISTOR	2.7Ω 1/16W J	
R2213	NRSA6AJ-2R7W	MG RESISTOR	2.7Ω 1/16W J	
R2217	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R2218	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R2219	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2220	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2221	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2222	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R2223	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R2224	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R2225	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2226	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2229	NRSA6AJ-564W	MG RESISTOR	560kΩ 1/16W J	
R2230	NRSA6AJ-564W	MG RESISTOR	560kΩ 1/16W J	
R2231	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R2401	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R2402	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R2403	NRSA6AJ-183W	MG RESISTOR	18kΩ 1/16W J	
R2406	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2407	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R2601	NRSA6AJ-182W	MG RESISTOR	1.8kΩ 1/16W J	
R2602	NRSA6AJ-182W	MG RESISTOR	1.8kΩ 1/16W J	
R2607	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R2608	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R2609	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R2610	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R3002	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3004	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3005	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R3006	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R3007	NRSA6AJ-562W	MG RESISTOR	5.6kΩ 1/16W J	
R3008	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R3009	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3010	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3011	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	
R3013	NRSA6AJ-242W	MG RESISTOR	2.4kΩ 1/16W J	
R3014	NRSA6AJ-392W	MG RESISTOR	3.9kΩ 1/16W J	
R3015	NRSA6AJ-392W	MG RESISTOR	3.9kΩ 1/16W J	
R3016	NRVA6AD-560W	CMF RESISTOR	56Ω 1/16W D	
R3017	NRVA6AD-560W	CMF RESISTOR	56Ω 1/16W D	
R3018	NRVA6AD-560W	CMF RESISTOR	56Ω 1/16W D	
R3019	NRVA6AD-560W	CMF RESISTOR	56Ω 1/16W D	
R3020	NRVA6AD-512W	CMF RESISTOR	5.1kΩ 1/16W D	
R3021	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R3025	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R3027	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3029	NRSA6AJ-822W	MG RESISTOR	8.2kΩ 1/16W J	
R3030	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	
R3031	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	
R3032	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R3034	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R3036	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3037	NRSA6AJ-681W	MG RESISTOR	680Ω 1/16W J	
R3057	NRSA6AJ-151W	MG RESISTOR	150Ω 1/16W J	
R3066	NRSA6AJ-561W	MG RESISTOR	560Ω 1/16W J	
R3067	NRSA6AJ-561W	MG RESISTOR	560Ω 1/16W J	
R3068	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3069	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R3071	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R3074	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3081	NRSA6AJ-471W	MG RESISTOR	470Ω 1/16W J	F,G,H,J
R3082	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	A,B,C,D,E
R3083	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R3701	NRSA6AD-271W	MG RESISTOR	270Ω 1/16W D	
R3702	NRSA6AD-271W	MG RESISTOR	270Ω 1/16W D	
R3703	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R3704	NRSA6AD-301W	MG RESISTOR	300Ω 1/16W D	

⚠ Symbol No.	Part No.	Part Name	Description	Local
R3705	NRSA6AD-301W	MG RESISTOR	300Ω 1/16W D	
R3706	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R3707	NRSA6AD-680W	MG RESISTOR	68Ω 1/16W D	
R3708	NRSA6AD-680W	MG RESISTOR	68Ω 1/16W D	
R3709	NRSA6AD-680W	MG RESISTOR	68Ω 1/16W D	
R3710	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R3711	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R3712	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R3713	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R3714	NRSA6AJ-823W	MG RESISTOR	82kΩ 1/16W J	
R3715	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3722	NRSA6AD-131W	MG RESISTOR	130Ω 1/16W D	
R3724	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R3725	NRSA6AD-131W	MG RESISTOR	130Ω 1/16W D	
R3726	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R3727	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R3728	NRSA6AD-131W	MG RESISTOR	130Ω 1/16W D	
R3730	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R3807	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R3851	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J	
R3852	NRSA6AD-821W	MG RESISTOR	820Ω 1/16W D	
R3853	NRSA6AD-273W	MG RESISTOR	27kΩ 1/16W D	
R3854	NRSA6AD-153W	MG RESISTOR	15kΩ 1/16W D	
R3855	NRSA6AD-821W	MG RESISTOR	820Ω 1/16W D	
R4201	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R4202	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4203	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4204	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4205	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4301	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4303	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4304	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4306	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4307	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R4308	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R4309	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4310	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4315	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4317	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4319	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4321	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4326	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R4327	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4328	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4329	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4330	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4331	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4332	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4333	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4334	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4335	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4336	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4337	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4338	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4339	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4341	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4342	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4343	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4344	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4345	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4346	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4348	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4349	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4350	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4351	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4352	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4353	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4354	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4355	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4356	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4804	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4805	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R4806	NRSA6AJ-683W	MG RESISTOR	68kΩ 1/16W J	
R4807	NRSA6AJ-823W	MG RESISTOR	82kΩ 1/16W J	
R4808	NRSA6AJ-243W	MG RESISTOR	24kΩ 1/16W J	
R4809	NRSA6AJ-681W	MG RESISTOR	680Ω 1/16W J	
R4810	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R4811	NRSA6AJ-824W	MG RESISTOR	820kΩ 1/16W J	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
R4812	NRSA6AJ-153W	MG RESISTOR	15kΩ 1/16W J	
R4814	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R4815	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R4816	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R4817	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	
R4818	NRSA6AJ-154W	MG RESISTOR	150kΩ 1/16W J	
R4819	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R4820	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R4821	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R4822	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R4823	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4824	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R4827	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4828	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4833	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R4836	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4841	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4842	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4843	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4844	NRSA6AJ-151W	MG RESISTOR	150Ω 1/16W J	
R4854	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4856	NRSA6AJ-6R8W	MG RESISTOR	6.8Ω 1/16W J	
R4857	NRSA6AJ-6R8W	MG RESISTOR	6.8Ω 1/16W J	
R4858	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R4859	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4860	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4862	NRSA6AJ-6R8W	MG RESISTOR	6.8Ω 1/16W J	
R4863	NRSA6AJ-6R8W	MG RESISTOR	6.8Ω 1/16W J	
R4864	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4865	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4866	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4867	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4868	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4870	NRSA6AJ-271W	MG RESISTOR	270Ω 1/16W J	
R4871	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4874	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4875	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R5501	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R5503	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R5504	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R5505	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R5506	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R5507	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R5509	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R5511	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R5512	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R5513	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R5514	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R6021	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R6022	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R6023	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R6024	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R6025	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R6026	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R6027	NRSA6AD-103W	MG RESISTOR	10kΩ 1/16W D	
R6028	NRSA6AD-751W	MG RESISTOR	750Ω 1/16W D	
R6029	NRSA6AD-103W	MG RESISTOR	10kΩ 1/16W D	
R6030	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R6031	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R6033	NRSA6AJ-562W	MG RESISTOR	5.6kΩ 1/16W J	
R6034	NRSA6AJ-153W	MG RESISTOR	15kΩ 1/16W J	
R6035	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6036	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6037	NRSA6AD-153W	MG RESISTOR	15kΩ 1/16W D	
R6038	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R6039	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6040	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R6042	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R6044	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	
R6102	NRVA6AD-223W	CMF RESISTOR	22kΩ 1/16W D	
R6103	NRVA6AD-103W	CMF RESISTOR	10kΩ 1/16W D	
R6104	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R6105	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6106	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R6107	NRSA6AD-183W	MG RESISTOR	18kΩ 1/16W D	
R6108	NRSA6AD-123W	MG RESISTOR	12kΩ 1/16W D	
R6109	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R6202	NRSA6AD-123W	MG RESISTOR	12kΩ 1/16W D	
R6203	NRSA6AD-153W	MG RESISTOR	15kΩ 1/16W D	
R6302	NRSA6AD-183W	MG RESISTOR	18kΩ 1/16W D	
R6303	NRSA6AD-472W	MG RESISTOR	4.7kΩ 1/16W D	
R6305	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6306	NRSA6AJ-123W	MG RESISTOR	12kΩ 1/16W J	
R6308	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R6309	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R6402	NRSA6AD-243W	MG RESISTOR	24kΩ 1/16W D	
R6403	NRSA6AD-302W	MG RESISTOR	3kΩ 1/16W D	
R6405	NRSA6AJ-123W	MG RESISTOR	12kΩ 1/16W J	
R6406	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R6407	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6502	NRSA6AD-473W	MG RESISTOR	47kΩ 1/16W D	
R6503	NRSA6AD-562W	MG RESISTOR	5.6kΩ 1/16W D	
R6505	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R6506	NRSA6AJ-273W	MG RESISTOR	27kΩ 1/16W J	
R6602	NRSA6AD-114W	MG RESISTOR	110kΩ 1/16W D	
R6603	NRSA6AD-392W	MG RESISTOR	3.9kΩ 1/16W D	
R6604	NRSA6AD-114W	MG RESISTOR	110kΩ 1/16W D	
R6605	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R6606	NRSA6AD-104W	MG RESISTOR	100kΩ 1/16W D	
R6607	NRSA6AD-473W	MG RESISTOR	47kΩ 1/16W D	
R6608	NRSA6AJ-273W	MG RESISTOR	27kΩ 1/16W J	
R6609	NRSA6AJ-822W	MG RESISTOR	8.2kΩ 1/16W J	
R6610	NRSA6AD-473W	MG RESISTOR	47kΩ 1/16W D	
R6611	NRSA6AD-683W	MG RESISTOR	68kΩ 1/16W D	
R6612	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6613	NRSA6AJ-823W	MG RESISTOR	82kΩ 1/16W J	
R6614	NRSA6AD-104W	MG RESISTOR	100kΩ 1/16W D	
R6615	NRSA6AD-104W	MG RESISTOR	100kΩ 1/16W D	
R6616	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R6617	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R6618	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R6619	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R6701	NRZ0058-R20X	MG RESISTOR	0.2Ω 1/2W J	
R6702	NRSA6AD-114W	MG RESISTOR	110kΩ 1/16W D	
R6703	NRSA6AD-153W	MG RESISTOR	15kΩ 1/16W D	
R6704	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	
R6706	NRSA6AD-823W	MG RESISTOR	82kΩ 1/16W D	
R6707	NRSA6AD-333W	MG RESISTOR	33kΩ 1/16W D	
R6801	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R6803	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R6804	NRVA6AD-563W	CMF RESISTOR	56kΩ 1/16W D	
⚠ R6805	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R6813	NRVA6AD-273W	CMF RESISTOR	27kΩ 1/16W D	
R6815	NRSA6AJ-681W	MG RESISTOR	680Ω 1/16W J	
R8059	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	A,B,C,D,E
R8701	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8702	NRS181J-220X	MG RESISTOR	22Ω 1/8W J	F,G,H,J
R8703	NRS181J-220X	MG RESISTOR	22Ω 1/8W J	F,G,H,J
R8704	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	F,G,H,J
R8705	NRSA6AJ-152W	MG RESISTOR	1.5kΩ 1/16W J	F,G,H,J
R8706	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	F,G,H,J
R8707	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8708	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8709	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	F,G,H,J
R8710	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8711	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8712	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8713	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8715	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8716	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8717	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8718	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8720	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8721	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8722	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	F,G,H,J
R8723	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	F,G,H,J
R8724	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
RA1001	NRZ0034-473W	NET RESISTOR	47kΩ 1/32W J	
RA1002	NRZ0034-104W	NET RESISTOR	100kΩ 1/32W J	
RA1004	NRZ0034-104W	NET RESISTOR	100kΩ 1/32W J	
RA1005	NRZ0034-103W	NET RESISTOR	10kΩ 1/32W J	
RA1006	NRZ0034-102W	NET RESISTOR	1kΩ 1/32W J	
RA1007	NRZ0034-102W	NET RESISTOR	1kΩ 1/32W J	
RA1008	NRZ0034-104W	NET RESISTOR	100kΩ 1/32W J	
RA3001	NRZ0034-560W	NET RESISTOR	56Ω 1/32W J	
RA3002	NRZ0034-560W	NET RESISTOR	56Ω 1/32W J	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
RA3003	NRZ0034-100W	NET RESISTOR	10Ω 1/32W J	
RA3004	NRZ0034-103W	NET RESISTOR	10kΩ 1/32W J	
RA3005	NRZ0040-0R0X	NET RESISTOR	0Ω 1/16W J	
L1001	NQL402M-100X	COIL	10uH M	
L1002	NQL402M-100X	COIL	10uH M	
L2101	NQL315K-100X	COIL	10uH K	F,G,H,J
L2401	NQL402M-100X	COIL	10uH M	
L2402	NQL402M-100X	COIL	10uH M	
L2604	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L3001	NQR0129-002X	FERRITE BEADS		
L3002	NQR0129-002X	FERRITE BEADS		
L3004	NQR0006-001X	FERRITE BEADS		
L3005	NQR0006-001X	FERRITE BEADS		
L3007	NQL085J-2R2X	COIL	2.2uH J	
L3008	NQL085J-120X	COIL	12uH J	
L3012	NQR0129-002X	FERRITE BEADS		
L3014	NQL38DK-100X	P COIL	10uH K	
L3015	NQR0006-001X	FERRITE BEADS		
L3701	NQL38DK-100X	P COIL	10uH K	
L3801	NQR0129-002X	FERRITE BEADS		
L3802	NQR0129-002X	FERRITE BEADS		
L3803	NQR0006-001X	FERRITE BEADS		
L3804	NQL38DK-100X	P COIL	10uH K	
L4201	NQR0129-002X	FERRITE BEADS		
L4301	NQR0129-002X	FERRITE BEADS		
L4302	NQR0129-002X	FERRITE BEADS		
L4802	NQL302N-100X	COIL	10uH N	
L4851	NQR0129-002X	FERRITE BEADS		
L4852	NQL315K-100X	COIL	10uH K	
L4853	NQL315K-100X	COIL	10uH K	
L5501	NQL315K-100X	COIL	10uH K	
L5502	NQR0129-002X	FERRITE BEADS		
L5503	NQR0129-002X	FERRITE BEADS		
L5504	NQR0129-002X	FERRITE BEADS		
L5505	NQL315K-100X	COIL	10uH K	
L5506	NQL315K-100X	COIL	10uH K	
L6001	NQLZ011-4R7X	COIL	4.7uH N	
L6002	NQLZ011-4R7X	COIL	4.7uH N	
L6101	NQL52EM-390X	COIL	39uH M	
L6201	NQL52EM-390X	COIL	39uH M	
L6301	NQL52EM-390X	COIL	39uH M	
L6302	NQL144K-220X	P COIL	22uH K	
L6401	NQL52EM-470X	COIL	47uH M	
L6501	NQL52EM-470X	COIL	47uH M	
L6601	NQL52EM-221X	COIL	220uH M	
L6701	NQL73EM-100X	COIL	10uH M	
L6801	NQL034K-470X	P COIL	47uH K	
L8701	NQR0129-002X	FERRITE BEADS		F,G,H,J
L8702	NQR0129-002X	FERRITE BEADS		F,G,H,J
CN101	QGF0528F1-40X	CONNECTOR	FFC/FPC (1-40)	
CN102	QGF0505F1-22X	CONNECTOR	FFC/FPC (1-22)	
CN104	QGA1002C1-11X	CONNECTOR	W-B (1-11)	
CN105	QGB0509M1-30X	CONNECTOR	B-B (1-30)	
CN106	QGA1201C2-05X	CONNECTOR	W-B (1-5)	
CN107	QGF0503C1-20X	CONNECTOR	FFC/FPC (1-20)	
CN108	QGF0503C1-24V	CONNECTOR	FFC/FPC (1-24)	
CN109	QGF0503F1-16X	CONNECTOR	FFC/FPC (1-16)	
CN110	QGF0528F1-40X	CONNECTOR	FFC/FPC (1-40)	
CN111	QGF0528F1-40X	CONNECTOR	FFC/FPC (1-40)	
⚠ F6001	NMFZ007-2R0X-K	FUSE	2A 32V	
⚠ F6301	NMFZ007-1R25X-K	FUSE	1.25A 32V	
⚠ F6701	NMFZ007-1R25X-K	FUSE	1.25A 32V	
⚠ F6801	NMFZ007-R50X-K	FUSE	0.5A 50V	
J501	NNZ0041-001X	D CONNECTOR	IEEE1394(4pin)	
J502	QNZ0616-001	USB CONNECTOR		F,G,H,J
X1001	NAX0578-001X	CRYSTAL		
X1002	NAX0564-001X	CRYSTAL		
X3002	NAX0480-001X	CRYSTAL	24.576MHz	
X5501	NAX0587-001X	CXO		
X8701	NAX0398-001X	C OSCILLATOR		F,G,H,J
OT1	LY30030-069A	SPACER(A)		
OT2	LY44158-001A	SHEET(SHIELD)		
WR1	QAL0474-001	FPC	MAIN-PREMDA CN401	
WR2	QAL0474-001	FPC	MAIN-PREMDA CN408	

MONI-BW BOARD ASSEMBLY <02>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB10433E	MONI-BW BOARD ASSY		
IC7601	AN12550A	IC		
IC7602	BA4558F-X	IC		
Q7601	2SC4617/QR/-X	TRANSISTOR		
Q7601 or	2SC4738/YG/-X	TRANSISTOR		
Q7601 or	2SD2216J/QR/-X	TRANSISTOR		
Q7601 or	BC847BT-X	TRANSISTOR		
Q7602	2SA1774/QR/-X	TRANSISTOR		
Q7602 or	2SA1832/YG/-X	TRANSISTOR		
Q7602 or	BC857BT-X	TRANSISTOR		
Q7603	2SC4617/QR/-X	TRANSISTOR		
Q7603 or	2SC4738/YG/-X	TRANSISTOR		
Q7603 or	2SD2216J/QR/-X	TRANSISTOR		
Q7603 or	BC847BT-X	TRANSISTOR		
Q7604	2SA1774/QR/-X	TRANSISTOR		
Q7604 or	2SA1832/YG/-X	TRANSISTOR		
Q7604 or	BC857BT-X	TRANSISTOR		
Q7608	DTC144EE-X	DIGI TRANSISTOR		
Q7608 or	UN9213J-X	DIGI TRANSISTOR		
Q7608 or	RN1104-X	DIGI TRANSISTOR		
Q7608 or	BCR148T-X	DIGI TRANSISTOR		
Q7609	2SC4617/QR/-X	TRANSISTOR		
Q7609 or	2SC4738/YG/-X	TRANSISTOR		
Q7609 or	2SD2216J/QR/-X	TRANSISTOR		
Q7609 or	BC847BT-X	TRANSISTOR		
Q7610	DTA114EE-X	DIGI TRANSISTOR		
Q7610 or	BCR183T-X	DIGI TRANSISTOR		
Q7611	DTC144EE-X	DIGI TRANSISTOR		
Q7611 or	UN9213J-X	DIGI TRANSISTOR		
Q7611 or	RN1104-X	DIGI TRANSISTOR		
Q7611 or	BCR148T-X	DIGI TRANSISTOR		
Q7612	DTA144EE-X	DIGI TRANSISTOR		
Q7612 or	UN9113J-X	DIGI TRANSISTOR		
Q7612 or	RN2104-X	DIGI TRANSISTOR		
Q7612 or	BCR198T-X	DIGI TRANSISTOR		
Q7613	2SD2654/VW/-X	TRANSISTOR		
D7602	1SS355-X	SI DIODE		
C1	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C10	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7601	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C7602	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7603	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7604	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7605	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7606	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7607	NCB41CK-106X	C CAPACITOR	10uF 16V K	
C7608	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7609	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7613	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7614	NCB31HK-152X	C CAPACITOR	1500pF 50V K	
C7615	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7616	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7617	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7618	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C7619	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C7620	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7621	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C7622	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C7623	NBE21AM-106X	TA E CAPACITOR	10uF 10V M	
C7624	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7626	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7627	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C7628	NBP41EM-475X	TA E CAPACITOR	4.7uF 25V M	
C7629	NBP21CM-335X	TA E CAPACITOR	3.3uF 16V M	
C7630	NBP41EM-475X	TA E CAPACITOR	4.7uF 25V M	
C7631	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7632	NBP41EM-475X	TA E CAPACITOR	4.7uF 25V M	
C7633	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7634	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7635	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7637	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7646	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
C7647	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7651	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7661	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7662	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7663	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7664	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7665	NBP41CM-226X	TA E CAPACITOR	22uF 16V M	
C7666	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
R3	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R4	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R5	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R6	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R8	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R7601	NRVA63D-622X	CMF RESISTOR	6.2kΩ 1/16W D	
R7602	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R7603	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	
R7608	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R7609	NRVA63D-223X	CMF RESISTOR	22kΩ 1/16W D	
R7610	NRVA63D-433X	CMF RESISTOR	43kΩ 1/16W D	
R7611	NRVA63D-821X	CMF RESISTOR	820Ω 1/16W D	
R7612	NRVA63D-223X	CMF RESISTOR	22kΩ 1/16W D	
R7613	NRVA63D-223X	CMF RESISTOR	22kΩ 1/16W D	
R7614	NRVA63D-223X	CMF RESISTOR	22kΩ 1/16W D	
R7615	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7616	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7617	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	
R7618	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	
R7620	NRSA63J-335X	MG RESISTOR	3.3MΩ 1/16W J	
R7621	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7630	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7634	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7636	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R7637	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R7638	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R7661	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7662	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7663	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R7666	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R7667	NRVA63D-273X	CMF RESISTOR	27kΩ 1/16W D	
R7668	NRVA63D-273X	CMF RESISTOR	27kΩ 1/16W D	
R7669	NRVA63D-392X	CMF RESISTOR	3.9kΩ 1/16W D	
R7672	NRSA63D-394X	MG RESISTOR	390kΩ 1/16W D	
R7673	NRVA63D-473X	CMF RESISTOR	47kΩ 1/16W D	
R7674	NRVA63D-473X	CMF RESISTOR	47kΩ 1/16W D	
R7675	NRSA63J-274X	MG RESISTOR	270kΩ 1/16W J	
L7601	NQL365K-100X	COIL	10uH K	
L7602	NQL365K-470X	COIL	47uH K	
L7603	NQL365K-470X	COIL	47uH K	
L7604	NQL365K-100X	COIL	10uH K	
L7605	NQL365K-100X	COIL	10uH K	
L7607	NQL365K-100X	COIL	10uH K	
CN761	QGF0508F1-40X	CONNECTOR	FFC/FPC (1-40)	
CN763	QGF0507F3-20X	CONNECTOR	FFC/FPC (1-20)	
CN765	QGF0506F2-32X	CONNECTOR	FFC/FPC (1-32)	
SW2	NSW0145-001X	TACT SWITCH STOP		
SW3	NSW0145-001X	TACT SWITCH REW		
SW4	NSW0145-001X	TACT SWITCH FF		
SW5	NSW0145-001X	TACT SWITCH PLAY/PAUSE		
SW7	NSW0145-001X	TACT SWITCH INDEX		
SW8	NSW0145-001X	TACT SWITCH SELECT		
SW7601	NSW0200-001X	LEVER SWITCH MONI SW		

BL-2.5 BOARD ASSEMBLY <03>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB20938A	BL-2.5 BOARD ASSY		
IC7604	DN8797MS-X	IC		
Q7501	2SD1664/QR/-W	TRANSISTOR		
Q7502	2SD1664/QR/-W	TRANSISTOR		
Q7503	DTA144EE-X	DIGI TRANSISTOR		
Q7503 or	UN9113J-X	DIGI TRANSISTOR		
Q7503 or	RN2104-X	DIGI TRANSISTOR		
Q7503 or	BCR198T-X	DIGI TRANSISTOR		
Q7504	DTC144EE-X	DIGI TRANSISTOR		
Q7504 or	UN9213J-X	DIGI TRANSISTOR		
Q7504 or	RN1104-X	DIGI TRANSISTOR		
Q7504 or	BCR148T-X	DIGI TRANSISTOR		
C7501	NCZ1016-120X	C CAPACITOR	12pF 2kV J	
C7502	NCB21EK-273X	C CAPACITOR	0.027uF 25V K	
C7503	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7504	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
R7501	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R7502	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R7503	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R7504	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7511	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7512	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7513	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L7501	NQLZ010-680X	COIL	68uH M	
⚠ T7501	NQS0056-001X	SW TARNSF		
CN7601	QGF0507F3-16X	CONNECTOR	FFC/FPC (1-16)	
CN7602	QGF0507F3-16X	CONNECTOR	FFC/FPC (1-16)	
CN7603	QGF0508F1-24X	CONNECTOR	FFC/FPC (1-24)	
⚠ F7501	NMFZ007-R40X-K	FUSE	0.4A 50V	
WR1	QAL0464-001	FPC		

CCD BOARD ASSEMBLY <04>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB20942A-SS	CCD BOARD ASSY		
Q5001	2SC3931/CD/-X	TRANSISTOR		
C5001	NBP41EM-475X	TA E CAPACITOR	4.7uF 25V M	
C5002	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5003	NBE21AM-106X	TA E CAPACITOR	10uF 10V M	
C5004	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5005	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5006	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5007	NCB31EK-222X	C CAPACITOR	2200pF 25V K	
R5001	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R5002	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
L5001	NQL315K-100X	COIL	10uH K	
L5002	NQL315K-100X	COIL	10uH K	
CN5001	QGF0517F2-20X	CONNECTOR	FFC/FPC (1-20)	

PREMDA BOARD ASSEMBLY <05>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB10405A-01	PREMDA BOARD ASSY		
IC1601	BD6637KS	IC		
IC1701	LM358DMR2-X	IC		
IC1702	LM393DMR2-X	IC		
IC3501	JCY0132	IC		
IC3502	SN74AHC1G04K-X	IC		
Q1601	UMC3N-W	DIGI TRANSISTOR		
D1602	DAP222-X	DIODE ARRAY		
D1602 or	MA132WA-X	SI DIODE		

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
D1603	DAP222-X	DIODE ARRAY		
D1603 or	MA132WA-X	SI DIODE		
D1604	DAP222-X	DIODE ARRAY		
D1604 or	MA132WA-X	SI DIODE		
C1601	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C1602	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C1603	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C1605	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1606	NCB31HK-152X	C CAPACITOR	1500pF 50V K	
C1607	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C1614	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C1618	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C1619	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C1620	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C1621	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C1622	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C1623	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C1624	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C1625	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C1626	NCB31HK-822X	C CAPACITOR	8200pF 50V K	
C1627	NCB31HK-822X	C CAPACITOR	8200pF 50V K	
C1628	NCB21CK-224X	C CAPACITOR	0.22uF 16V K	
C1629	NBP41DM-106X	TA E CAPACITOR	10uF 20V M	
C1630	NCB21CK-334X	C CAPACITOR	0.33uF 16V K	
C1632	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C1633	NCB21CK-474X	C CAPACITOR	0.47uF 16V K	
C1641	NCB21CK-474X	C CAPACITOR	0.47uF 16V K	
C1701	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1702	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C3501	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3502	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3503	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3504	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C3505	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C3506	NCB21AK-105X	C CAPACITOR	1uF 10V K	
C3507	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3508	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3509	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3510	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C3511	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3512	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C3513	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C3514	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C3515	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C3516	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C3517	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3518	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3519	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C3520	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3521	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C3522	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M	
C3523	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3524	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3525	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M	
C3526	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3527	NDC31HJ-221X	C CAPACITOR	220pF 50V J	
C3528	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
R1601	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R1602	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J	
R1603	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R1604	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R1610	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R1611	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R1612	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R1613	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1614	NRZ0072-R330X	MG RESISTOR	0.33Ω 1/4W F	
R1616	NRSA63D-332X	MG RESISTOR	3.3kΩ 1/16W D	
R1617	NRZ0072-R330X	MG RESISTOR	0.33Ω 1/4W F	
R1620	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1621	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1622	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1624	NRSA63D-183X	MG RESISTOR	18kΩ 1/16W D	
R1625	NRSA63D-361X	MG RESISTOR	360Ω 1/16W D	
R1629	NRSA63J-564X	MG RESISTOR	560kΩ 1/16W J	
R1630	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1631	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	

⚠ Symbol No.	Part No.	Part Name	Description	Local
R1635	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R1636	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R1637	NRSA63J-154X	MG RESISTOR	150kΩ 1/16W J	
R1638	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1639	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1640	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1641	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1642	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1648	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1701	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J	
R1702	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1703	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1704	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1705	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1706	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J	
R1707	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1708	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J	
R1709	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1710	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J	
R1711	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1712	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R3501	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R3502	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R3503	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R3504	NRSA63D-241X	MG RESISTOR	240Ω 1/16W D	
R3505	NRSA63D-241X	MG RESISTOR	240Ω 1/16W D	
R3506	NRSA63D-241X	MG RESISTOR	240Ω 1/16W D	
R3507	NRSA63D-241X	MG RESISTOR	240Ω 1/16W D	
R3508	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R3511	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
L3501	NQR0006-001X	FERRITE BEADS		
L3502	NQL402M-100X	COIL	10uH M	
L3503	NQR0006-001X	FERRITE BEADS		
L3504	NQR0006-001X	FERRITE BEADS		
L3505	NQR0006-001X	FERRITE BEADS		
CN401	QGF0528F1-40X	CONNECTOR	FFC/FPC (1-40)	
CN402	QGF0517F1-08X	CONNECTOR	FFC/FPC (1-8)	
CN403	QGF0505F2-06X	CONNECTOR	FFC/FPC (1-6)	
CN404	QGF0507F3-11X	CONNECTOR	FFC/FPC (1-11)	
CN405	QGF0507F3-18X	CONNECTOR	FFC/FPC (1-18)	
CN406	QGF0503F4-16X	CONNECTOR	FFC/FPC (1-16)	
CN407	QGF0508F1-06X	CONNECTOR	FFC/FPC (1-6)	
CN408	QGF0528F1-40X	CONNECTOR	FFC/FPC (1-40)	
⚠ F1601	NMFZ007-R20X-K	FUSE	0.2A 50V	
⚠ F1602	NMFZ007-R50X-K	FUSE	0.5A 50V	
OT1	LY33021-001A	S.COVER(P/R)		

JACK BOARD ASSEMBLY <06>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB20943B-01	JACK BOARD ASSY		
IC501	BA10358F-XE	IC		
IC502	RPM7138-V4	IR DETECT UNIT		
Q501	RPM-22PB	PHOTO TRANSISTOR		
D501	SML-010LT-X	LED		
D503	MA8068-X	Z DIODE		
D506	MA8068-X	Z DIODE		
D507	EMZ6.8N-X	Z DIODE		
C501	NBE21AM-335X	TA E CAPACITOR	3.3uF 10V M	
C502	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C503	NCB31EK-153X	C CAPACITOR	0.015uF 25V K	
C504	NCB31EK-153X	C CAPACITOR	0.015uF 25V K	
C506	NBE21AM-106X	TA E CAPACITOR	10uF 10V M	
C509	NBE20JM-226X	TA E CAPACITOR	22uF 6.3V M	
C512	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C513	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
R501	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

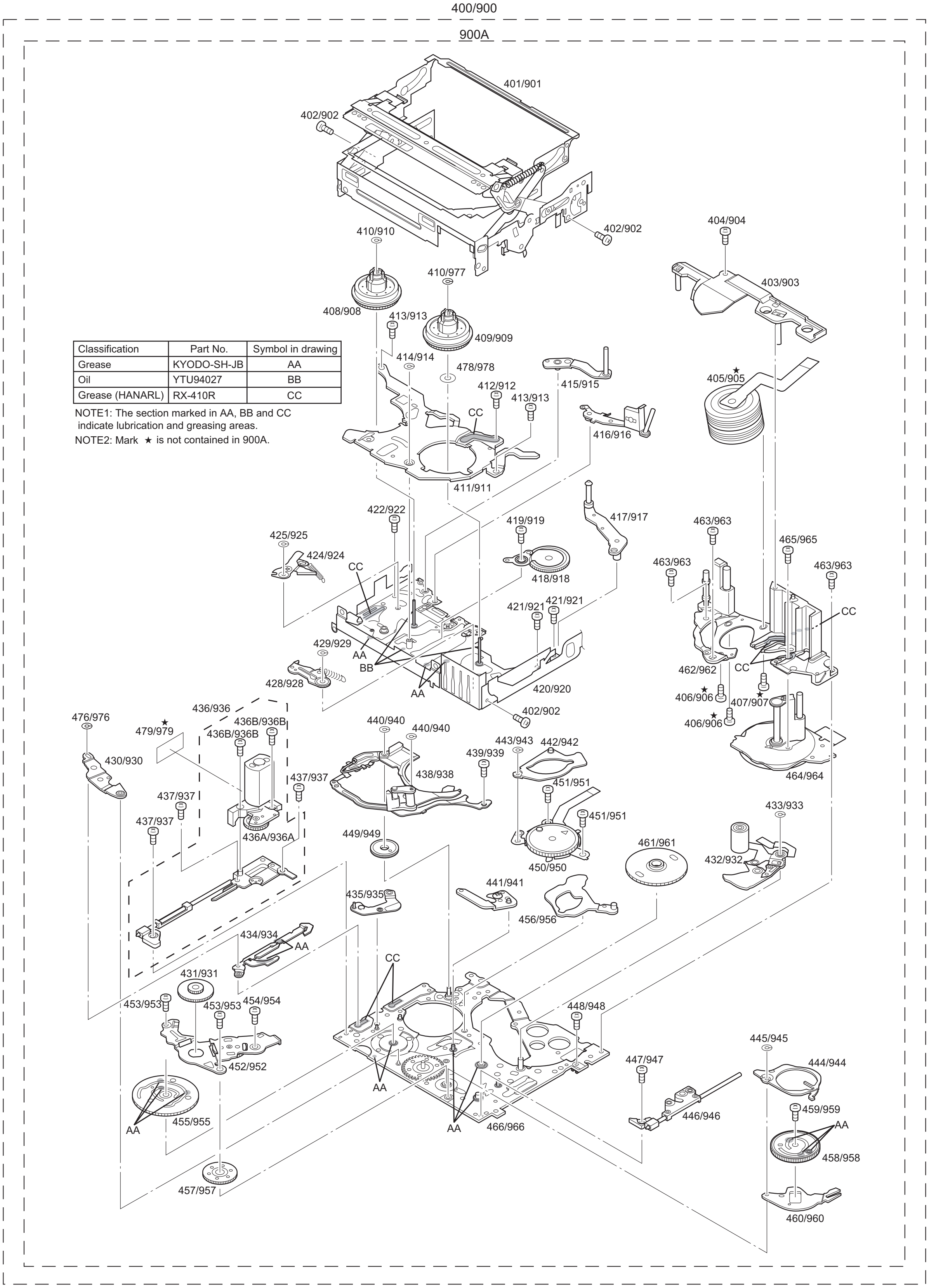
⚠ Symbol No.	Part No.	Part Name	Description	Local
R502	NRSA63J-684X	MG RESISTOR	680kΩ 1/16W J	
R503	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R504	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R505	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R506	NRSA63J-824X	MG RESISTOR	820kΩ 1/16W J	
R507	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R508	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	
R509	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	
R510	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R511	NRSA63J-302X	MG RESISTOR	3kΩ 1/16W J	
R512	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R513	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R514	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R515	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R516	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R517	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R518	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R519	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R520	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R521	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R522	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R523	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
L501	NQR0251-004X	FERRITE BEADS		
L502	NQR0251-004X	FERRITE BEADS		
L503	NQR0251-004X	FERRITE BEADS		
CN501	QGF0503C1-22X	CONNECTOR	FFC/FPC (1-22)	
J501	QNS0078-001	3.5 JACK		
J502	QND0004-001	S JACK		
J503	PEMC1203	MINI JACK		
SW501	NSW0122-001X	DETECT SWITCH EJECT SW		

B/W-VF BOARD ASSEMBLY <07>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB20940A	B/W-VF BOARD ASSY		
Q7001	PUMX1-W	PAIR TRANSISTOR		
Q7001 or	BC847S-X	PAIR TRANSISTOR		
D7001	E1S35AW0C501-X	LED		
C7001	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7002	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7003	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7004	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
R7001	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R7002	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J	
R7003	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R7004	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
CN7001	QGF0532F1-18X	CONNECTOR	FFC/FPC (1-18)	
CN7002	QGF0507F3-20X	CONNECTOR	FFC/FPC (1-20)	

SECTION 3
PARTS LIST

3.1 DVC MECHANISM ASSEMBLY



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436A/936A
449/949
461/961
450/950
432/932
441/941
435/935
456/956
434/934
AA
CC
431/931
453/953
453/953
454/954
448/948
452/952
445/945
447/947
444/944
AA
459/959
AA
455/955
AA
AA
466/966
446/946
AA
458/958
457/957
460/960

Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	YTU94027	BB
Grease (HANARL)	RX-410R	CC

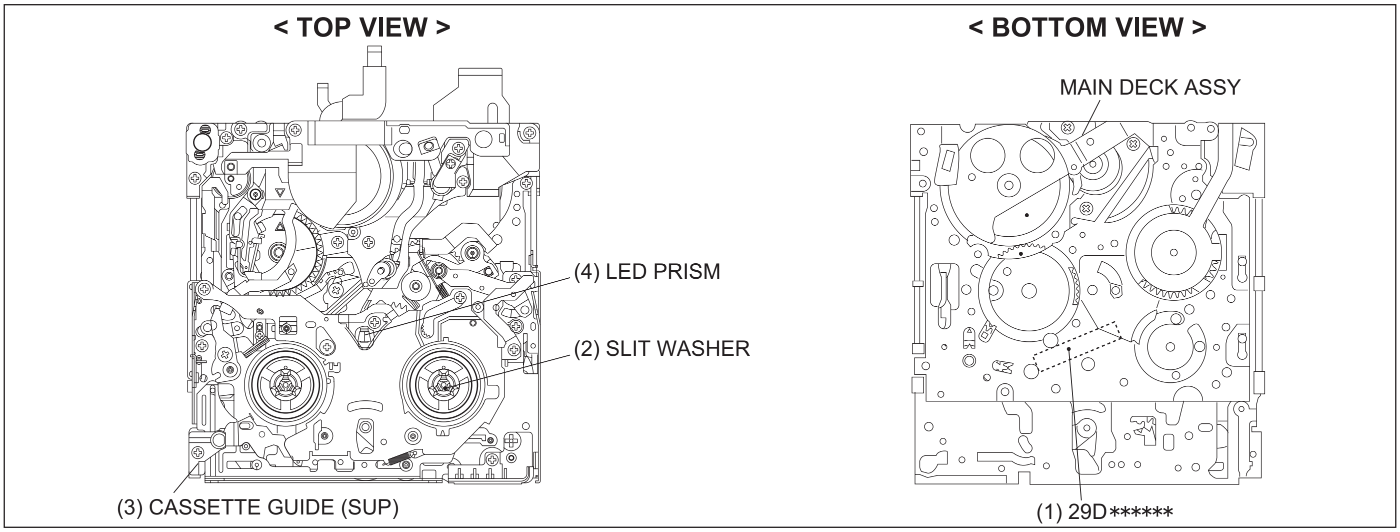
NOTE1: The section marked in AA, BB and CC indicate lubrication and greasing areas.

NOTE2: Mark ★ is not contained in 900A.

Fig.3-1-1

3.1.1 DVC MECHANISM ASSEMBLY PART LIST

- Since parts numbers described here are the numbers at the time of manualissue, they are subject to change without notice. Therefore, be sure to see a parts list in the service manual of each model as for parts numbers.
- To distinguish the mechanism assembly with the symbol number of 400-499 from the mechanism assembly with the symbol number of 900-999, see the following procedures.
  (1) See the numbers on the backside of the MAIN DECK ASSY.
  For example, "29D******" is printed on the backside of the mechanism assembly with the symbol number of 900-999 (YMA0029D in this example). See the first three characters and numbers from the left.
  (2) See the color of the SLIT WASHER on the REEL DISK (TU).
  A red slit washer is used (the same color as a slit washer of CASSETTE GUIDE (SUP)) in the mechanism assembly with the symbol number of 400-499. A black slit washer is used in the mechanism assembly with the symbol number of 900-999.
  However, the black slit washer may be changed into a red one for the purpose of parts unification.
  (3) See the color of the CASSETTE GUIDE(SUP).
  Light-brown CASSETTE GUIDE(SUP) is used in the mechanism assembly with the symbol number of 400-499.
  Black CASSETTE GUIDE(SUP) is used in the mechanism assembly with the symbol number of 900-999.
  (4) See the shape of the LED PRISM. LED PRISM consists of only resin in the mechanism assembly with the symbol number of 400-499.
  Upper part of the LED PRISM is covered with black metal in the mechanism assembly with the symbol number of 900-999.



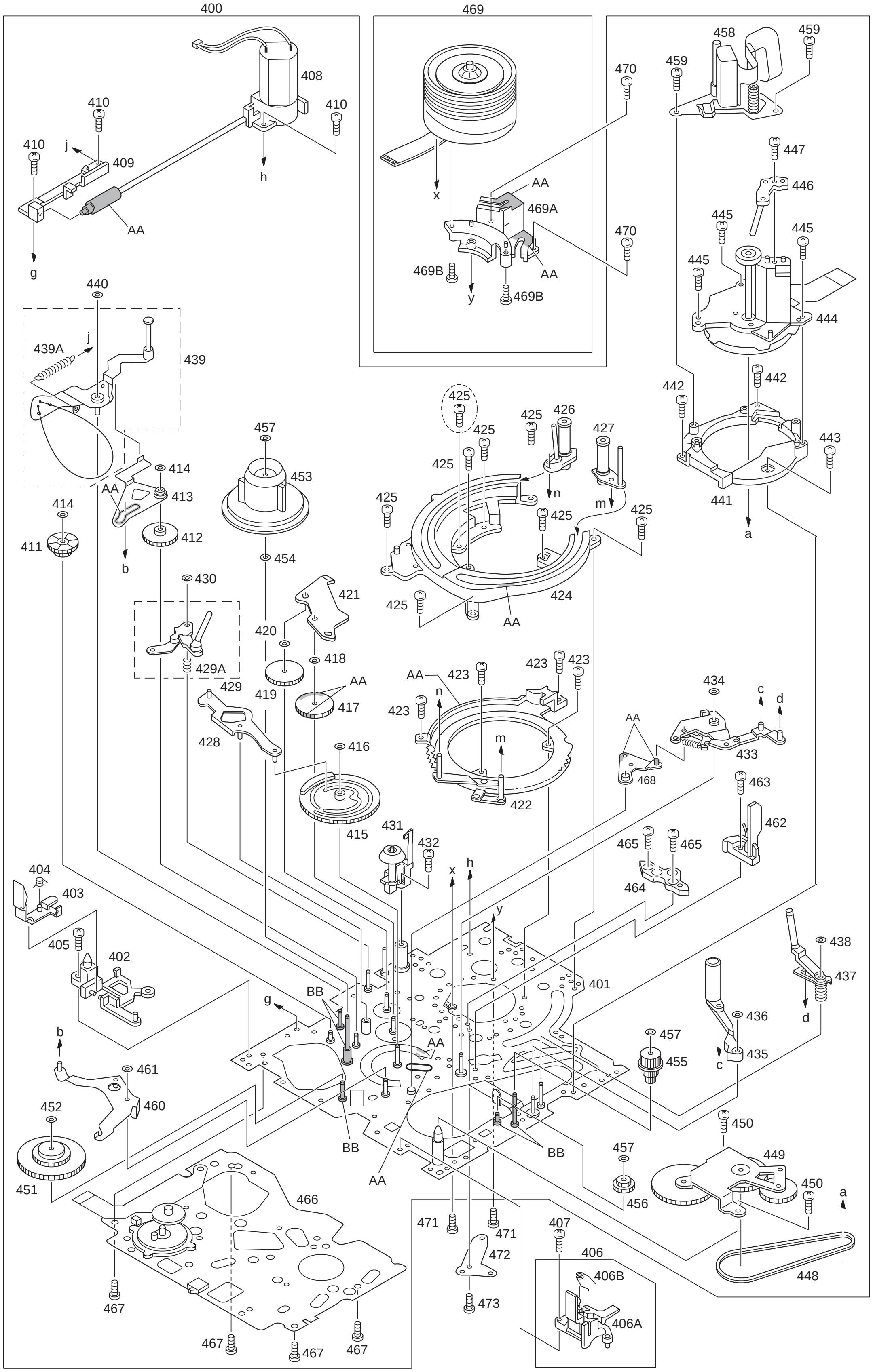
Part Name	Symbol No.	Part No.	Part No.	Part No.	Symbol No.	Part No.	Patr No.
MECHA(A) ASSY	400	YMA0029C	YMA0029M	YMA0029L	900	YMA0029H	YMA0029E
MECHA(A)ASSY	-	-	-	-	900A	YMA0029D	-
CASSETTE HOUSING ASSY	401	LY31543-002E*	LY31543-002H	←	901	LY32870-001G*	LY32870-001J
MINI SCREW,X3	402	YQ43893-8	←	←	902	←	←
UPPER BASE ASSY	403	LY31542-001J	←	←	903	LYH30420-001A	←
MINI SCREW	404	YQ43893*	QYSPSPU1425M	←	904	←	←
DRUM ASSY	405	**	**	**	905	**	**
DAMP.SCREW ASSY,X2	406	LY42820-001A	←	←	906	←	←
DAMP.SCREW ASSY	407	LY42820-002A	←	←	907	←	←
REEL DISK ASSY (SUP)	408	LY31538-001B*	LY31538-001F	←	908	←	←
REEL DISK ASSY (TU)	409	LY31538-002B*	LY31538-002H	LY31538-002G	909	LY31538-002H	←
SLIT WASHER,X2 or X1	410	YQ44246,(x2)	←,(x2)	←,(x2)	910	←*,(x1)	←,(x2)
REEL COVER ASSY	411	LY10217-001A*	LY10217-001F	←	911	LY10372-001D	←
MINI SCREW	412	LY42120-001A*	LY42120-002A	←	912	←	←
MINI SCREW,X2	413	LY41945-003A	←	←	913	←	←
SLIT WASHER	414	YQ44246	←	←	914	←	←
TENSION ARM ASSY	415	LY42025-001C	←	←	915	LY43725-001D	←
SLANT POLE ARM ASSY	416	LY31535-001F	←	←	916	LYH40269-001A	←
TU ARM ASSY	417	LY42031-001G*	LY42031-001K	←	917	LY43731-001F	←
SWING ARM ASSY	418	LY31531-001D	←	←	918	←	←
MINI SCREW	419	YQ43893	←	←	919	←	←
SLIDE DECK FINAL ASSY	420	LY20530-003B*	LY20530-003E	←	920	LYH30424-001A	←

Part Name	Symbol No.	Part No.	Part No.	Part No.	Symbol No.	Part No.	Patr No.
MINI SCREW,X2	421	YQ43893	←	←	921	←	←
MINI SCREW	422	LY43023-001A	←	←	922	←	←
PAD ARM ASSY	424	LY31533-001E	←	←	924	LYH30419-001A	←
SLIT WASHER	425	YQ44246	←	←	925	←	←
TU BRAKE ASSY	428	LY42016-001B	←	←	928	LYH40270-001A	←
SLIT WASHER	429	YQ44246	←	←	929	←	←
TENSION CONTROL LEVER ASSY	430	LY41959-001B	←	←	930	LY43684-001A	←
CENTER GEAR	431	LY31525-001B	←	←	931	LY32861-001A	←
PINCH ROLLER ARM FINAL ASSY	432	LY31516-001E	←	LY31516-001F	932	←	←
SLIT WASHER	433	YQ44246	←	←	933	←	←
TENSION CONTROL PLATE ASSY	434	LY41956-001C	←	←	934	LY43681-001A	←
BRAKE CONTROL LEVER ASSY	435	LY41962-001B*	LY41962-001C	←	935	LY43687-001A	←
MOTOR BRACKET ASSY	436	LY20525-002C	←	←	936	LYH30421-001A	←
LOADING MOTOR	436A	QAR0138-001	←	←	936A	←	←
TAPPING SCREW,x2	436B	LY41940-001A	←	←	936B	←	←
MINI SCREW,x3	437	YQ43893	←	←	937	←	←
GUIDE RAIL ASSY	438	LY20528-001R*	LY20528-001U	←	938	LYH30422-001A	←
MINI SCREW	439	YQ43893	←	←	939	←	←
SLIT WASHER,X2	440	YQ44246	←	←	940	←	←
SLIDE LEVER2 ASSY	441	LY31498-001C	←	LY31498-001D	941	LY32843-001A	←
LOADING PLATE ASSY	442	LY41965-001A	←	←	942	LY43690-001A	←
SLIT WASHER	443	YQ44246	←	←	943	←	←
EJECT LEVER	444	LY31522-001B	←	←	944	LY32858-001A	←
SLIT WASHER	445	YQ44246	←	←	945	←	←
BASE R ASSY	446	LY41929-001E*	LY41929-001F	←	946	LYH40271-001A	←
MINI SCREW	447	YQ43893	←	←	947	←	←
MINI SCREW	448	LY41945-001B	←	←	948	←	←
MODE GEAR	449	LY41930-001A	←	←	949	LY43665-001A	←
ROTARY ENCODER	450	QSW0876-003	←	←	950	←	←
MINI SCREW,X2	451	YQ43893	←	←	951	←	←
GEAR COVER ASSY	452	LY31524-001A	←	←	952	LY32860-001A	←
MINI SCREW,X2	453	YQ43893	←	←	953	←	←
MINI SCREW	454	YQ43893-4	←	←	954	←	←
MAIN CAM ASSY	455	LY41948-001C	←	←	955	LY43676-001A	←
SLIDE ARM ASSY	456	LY41941-001B	←	←	956	←	←
CONNECT GEAR 2	457	LY41951-001B	←	←	957	LY43678-001A	←
SUB CAM ASSY	458	LY41954-001B	←	LY41954-001E	958	←	←
MINI SCREW	459	LY42120-001A	←	←	959	←	←
CONTROL ARM ASSY	460	LY41952-001A	←	←	960	LY43692-001A	←
REEL GEAR 1	461	LY31523-001B	←	←	961	LY32859-001A	←
DRUM BASE ASSY	462	LY31508-002A*	LY31508-002B	LY33372-001A	962	LY31508-002B	←
SCREW,X3	463	QYSPSPU1425M	←	←	963	←	←
CAPSTAN MOTOR	464	QAR0142-001	←	←	964	←	←
MINI SCREW	465	YQ43893	←	←	965	←	←
MAIN DECK ASSY	466	LY10210-001D*	LY10210-001G	←	966	LY10367-001D*	LY10367-001E
SLIT WASHER	476	YQ44246	←	←	976	←	←
SLIT WASHER	477	-	-	-	977	YQ44246-6	-
WASHER	478	-	-	-	978	LY42047-005A	←
SPACER	479	-*	LY43987-001B	←	979	←	←

NOTE:

MARK ← is same as left.
MARK - is not used.
MARK * reference model was also changed.
MARK ** shows different parts number, depending on models.

3.2 VHS-C MECHANISM ASSEMBLY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449
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a
466
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471
472
407
406
406B
406A
448
467
467
467
467
473

Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	YTU94027	BB

NOTE: The section marked in **AA** and **BB** indicate lubrication and greasing areas.

Fig.3-2-1

3.2.1 VHS-C MECHANISM ASSEMBLY PARTS LIST

- Since parts numbers described here are the numbers at the time of manualissue, they are subject to change without notice. Therefore, be sure to see a parts list in the service manual of each model as for parts numbers.

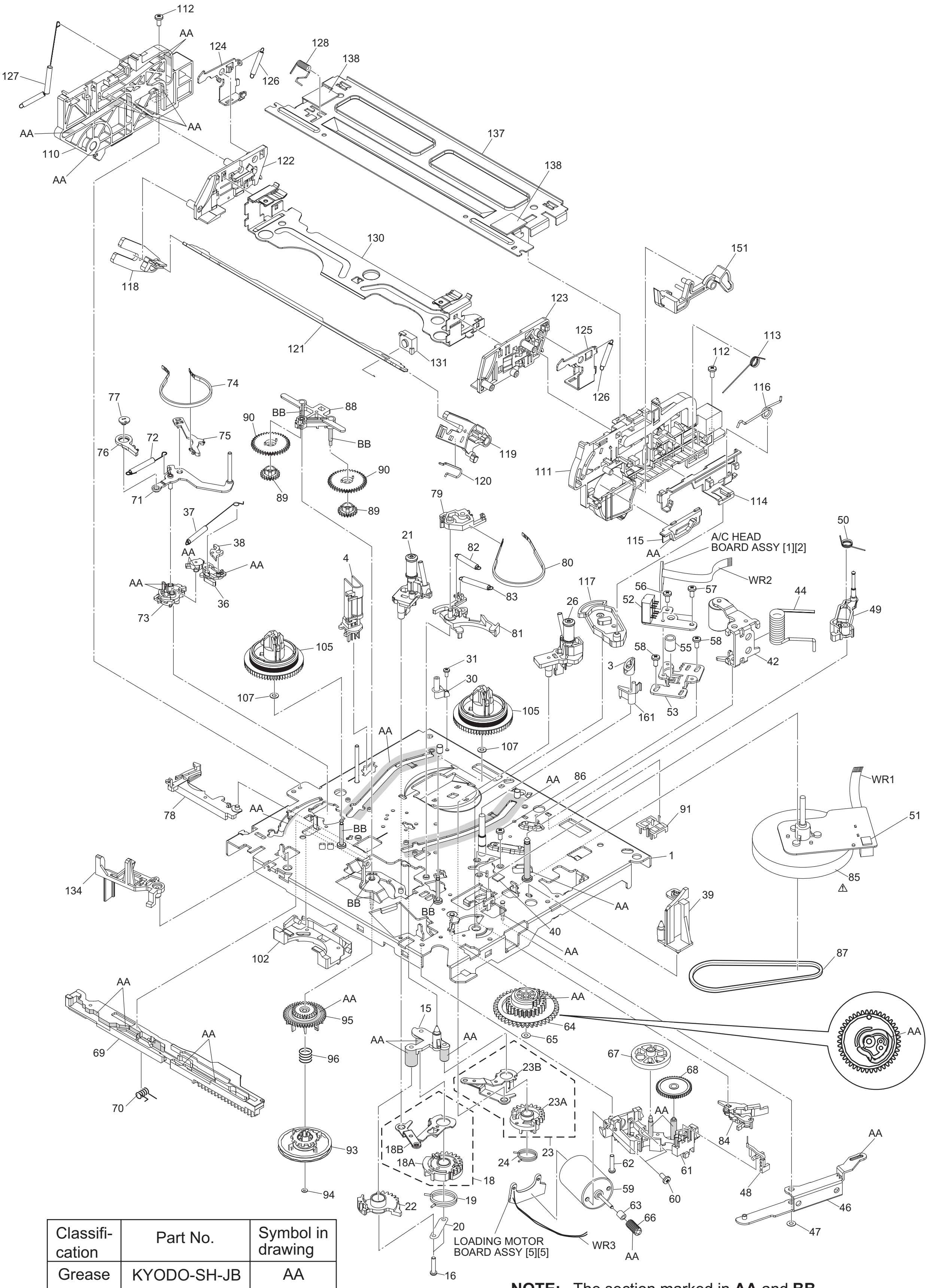
Part Name	Symbol No.	Part No.	Part No.	Part No.	Part No.	Part No.
MECHA(B) ASSY	400	YMA0033A-E	YMA0042A-E	YMA0034A-E	YMA0036A-E	YMA0040A-E
MAIN DECK ASSY	401	LY20612-001B	←	←	←	←
CASSETTE GUIDE (LEFT)	402	LY31817-001A	←	←	←	←
SW LEVER (LEFT)	403	LY31815-001A	←	←	←	←
TORSION SPRING	404	LY42581-001A	←	←	←	←
SCREW	405	LY42722-001A	←	←	←	←
CASSETTE GUIDE ASSY(RIGHT)	406	-	-	YQ44339A-7	←	←
SW.LEVER(RIGHT)	406A	-	-	YQ32162-1-3	←	←
TORSION SPRING	406B	-	-	YQ44340-1-4	←	←
SCREW	407	-	-	LY42819-001A	←	←
MOTOR BRACKET ASSY	408	LY31826-001A	←	←	←	←
WORM BRACKET	409	YQ20793	LY20951-001A	YQ20793	←	LY20951-001A
SCREW,X3	410	LY42722-001A	←	←	←	←
WHEEL GEAR	411	LY31925-001A	←	←	←	←
MIDDLE GEAR	412	LY42730-001A	←	←	←	←
CANCEL LEVER ASSY	413	LY42521-001A	←	←	←	←
SLIT WASHER,X2	414	LY42754-003A	←	←	←	←
CONTROL CAM	415	YQ20827-2-1	←	←	←	←
SLIT WASHER	416	PQM30017-25	←	←	←	←
LOADING GEAR(T)ASSY	417	LY42733-001A	←	←	←	←
SLIT WASHER	418	LY42754-003A	←	←	←	←
LOADING GEAR(S)ASSY	419	LY42732-001A	←	←	←	←
SLIT WASHER	420	LY42754-003A	←	←	←	←
COVER PLATE	421	LY42403-001A	←	←	←	←
LOADING RING ASSY	422	LY42452-001A	←	←	←	←
SCREW,X4	423	LY42728-001A	←	←	←	←
GUIDE RAIL	424	LY10239-001A	←	←	←	←
SCREW,X8 or X7	425	LY42728-001A,(X8)	←,(X7)	←,(X8)	←,(X8)	←,(X7)
POLE BASE(S)ASSY	426	LY30161-001B	←	←	←	←
POLE BASE(T)ASSY	427	LY30162-002A	←	←	←	←
DRIVE LEVER ASSY	428	LY42523-001A	←	←	←	←
SLANT ARM ASSY	429	LY42545-001B	LY44000-001B	LY42545-001B	←	LY44000-001B
TORSION SPRING(S)	429A	LY42547-001A	LY43992-001A	LY42547-001A	←	LY43992-001A
SLIT WASHER	430	LY42754-003A	←	←	←	←
ROLLER BASE ASSY	431	LY42739-003A	←	←	←	←
SCREW	432	LY42722-001A	←	←	←	←
LINK ARM ASSY	433	LY42494-001A	←	←	←	←
SLIT WASHER	434	PQM30017-25	←	←	←	←
PINCH ROLLER ARM ASSY	435	LY40018-002A	←	←	LY40018-005A	←
SLIT WASHER	436	PQM30017-25	←	←	←	←
TAKE UP GUIDE ARM ASSY	437	LY42541-001B	←	←	←	←
SLIT WASHER	438	LY42754-003A	←	←	←	←
TENSION ARM ASSY	439	LY42571-001A	←	←	←	←
TENSION SPRING	439A	LY42669-001A	←	←	←	←
SLIT WASHER	440	LY42754-003A	←	←	←	←
MOTOR BASE	441	YQ20797-1-5	←	←	←	←
SCREW,X2	442	LY42722-001A	←	←	←	←
SCREW	443	YQ44460	←	←	←	←
CAPSTAN MOTOR	444	QAR0212-001	QAR0212-002	QAR0212-001	QAR0212-002	←
TAPPING SCREW,X3	445	YQ44304	←	←	←	←
SLANT POLE BASE ASSY	446	LY42731-001A	←	←	←	←
TAPPING SCREW	447	YQ44304	←	←	←	←
TIMING BELT	448	YQ43710-2	←	←	←	←
CENTER PULLEY UNIT	449	LY42678-001A	←	←	←	LY42678-003A

Part Name	Symbol No.	Part No.	Part No.	Part No.	Part No.	Part No.
SCREW,X2	450	LY42722-002A	←	←	←	←
SUPPLY CLUTCH ASSY	451	LY42670-001A	←	←	←	←
SLIT WASHER	452	LY42754-003A	←	←	←	←
REEL DISC	453	YQ31861-1-7	←	←	←	←
WASHER	454	LY42755-001A	←	←	←	←
TAKE UP GEAR	455	LY31924-001A	←	←	←	←
BRAKE SUB GEAR	456	LY42738-001A	←	←	←	←
SLIT WASHER,X3	457	LY42754-003A	←	←	←	←
A/C HEAD UNIT	458	LY42544-001B	LY42544-002A	LY42544-001B	←	LY42544-002A
SCREW,X2	459	SPSN1750Z	←	←	←	←
EJECT LEVER ASSY	460	LY42517-001A	←	←	←	←
SLIT WASHER	461	LY42754-003A	←	←	←	←
LED GUIDE	462	YQ31833-1-1	←	←	←	←
SCREW	463	LY42722-001A	←	←	←	←
DRUM SPACER	464	LY42729-001A	←	←	←	←
SCREW,X2	465	LY42722-001A	←	←	←	←
ROTARY ENCODER	466	QSW0888-001	←	QSW0888-002	←	←
SCREW,X4	467	LY42722-002A	←	←	←	←
LINK LEVER	468	LY31814-001A	←	←	←	←
DRUM FINAL ASSY	469	**	**	**	**	**
CATCHER	469A	YDM1003-1-5	←	←	←	←
SCREW,X2	469B	QYSPSPU1735M	←	←	←	←
SCREW,X2	470	LY42722-001A	←	←	←	←
SCREW,X2	471	SPSH1740Z	←	←	←	←
BRUSH	472	LY43542-001A	←	←	←	←
SCREW	473	LY42722-003A	←	←	←	←
CASSETTE HOUSING FINAL ASSY	*155/481	LY31808-001C	LY31808-002C	LY31808-001C	LY31808-001D	LY31808-002C
SCREW,X4	*156/482	LY42722-003A	←	←	←	←
BRACKET(MECHA)	*161/484	LY32326-001A	←	←	←	←
SCREW,X2	*162/485	LY42722-003A	←	←	←	←
SIDE BRACKET L	*164/487	LY31807-001A	←	←	←	←
SCREW	*165/488	LY42722-003A	←	←	←	←

NOTE:

MARK ← is same as left.
MARK - is not used.
MARK * are shown in the parts list of FINAL ASSY of service manual of each model.
MARK ** shows different parts number, depending on models.

3.3 VHS MECHANISM ASSEMBLY



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119
90
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89
120
111
89
79
114
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38
AA
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73
21
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115
AA
A/C HEAD
BOARD ASSY [1][2]
4
82
80
WR2
117
56
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83
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161
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107
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86
WR1
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78
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18B
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62
18A
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18
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63
19
66
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22
20
LOADING MOTOR
BOARD ASSY [5][5]
WR3
47
AA
16
94

Classifi-cation	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	COSMO-HV56	BB

NOTE: The section marked in **AA** and **BB** indicate lubrication and greasing areas.

Fig.3-3-1

3.3.1 VHS MECHANISM ASSEMBLY PARTS LIST

- Since parts numbers described here are the numbers at the time of manualissue, they are subject to change without notice. Therefore, be sure to see a parts list in the service manual of each model as for parts numbers.

System		VHS		S-VHS	
**Job No.		V15D Series	V16D Series	V15S Series	V16S Series
Part Name	Symbol No.	Part No.	Part No.	Part No.	Part No.
MAIN DECK ASSY	1	LP21039-001N	LP21039-001S	LP21039-001R	LP21039-001S
GUIDE POLE CAP	3	LP40097-002D	←	←	←
FULL ERASE HEAD	4	QAH0082-001	←	←	←
LOAD.GEAR BASE	15	LP30958-001B	←	←	←
SCREW,X2	16	QYTPST2620Z	←	←	←
LORD.GEAR(SUPPLY) ASSY	18	LP40798-001A	←	←	←
LORD.GEAR(SUPPLY)	18A	LP21040-001A	←	←	←
LORD.ARM(SUPPLY) ASSY	18B	LP40799-001A	←	←	←
TORSION SPRING(SUPPLY)	19	LP40837-001A	←	←	←
FIXING PLATE	20	LP40903-001A	←	←	←
POLE BASE ASSY(SUPPLY)	21	LP40806-001D	←	←	←
LOAD GEAR	22	LP30959-002A	←	←	←
LORD. GEAR(TAKE UP) ASSY	23	LP40802-001B	LP40802-001C	LP40802-001B	LP40802-001C
LORD. GEAR(TAKE UP)	23A	LP21041-001B	LP21041-001C	LP21041-001B	LP21041-001C
LORD.ARM(TAKE UP) ASSY	23B	LP40803-001A	←	←	←
TORSION SPRING(TAKE UP)	24	LP40838-001A	←	←	←
POLE BASE ASSY(TAKE UP)	26	LP40808-001F	LP40808-001E	←	←
ARM BASE	30	-	←	LP31020-004A	←
SCREW	31	-	←	QYTDST2606Z	-
TU LEVER	36	LP21055-001E	←	←	←
TENSION SPRING	37	LP40943-001A	←	←	←
T-UP HEAD	38	LP40859-001D	←	←	←
LID GUIDE	39	LP30961-001C	←	←	←
SPACER	40	LP30002-0B7A	←	←	-
PINCH ROLLER ARM ASSY	42	LP40810-001A	←	←	←
TORSION SPRING	44	LP40840-001C	LP40840-001D	←	←
PRESS LEVER	46	LP30963-001B	←	←	←
SLIT WASHER	47	PQM30017-24	←	←	←
S-SWITCH	48	-	←	LP40930-002E	←
GIDE ARM ASSY	49	LP40813-001D	←	←	←
TORSION SPRING	50	LP40841-001A	←	←	←
SPACER	51	LP30002-090A	←	←	-
A/C HEAD	52	QAH0081-001	←	←	←
HEAD BASE	53	LP30965-001A	←	←	←
COMPRESSION SPRING	55	LP40842-001A	LP40842-001D	LP40842-001A	LP40842-001D
SCREWX1 A/C HEAD	*56	QYTDST2006M	←	←	←
A/C HEAD SCREW,X2	*57	LP41036-001A	←	←	←
SCREW,X2 A/C HEAD	*58	QYTDST2606Z	←	←	←
LOADING MOTOR	59	QAR0023-001	←	←	←
SCREW,X2	60	QYTPSP3003Z	←	←	←
MOTOR BRACKET	61	LP21056-002F	LP21056-002G	←	←
TAP SCREW	62	QYTPST2620Z	←	←	←
WORM BEARING	63	LP40814-001B	←	←	←
CONTROL CAM	64	LP21044-001D	←	←	←
SLIT WASHER	65	PQM30017-24	←	←	←
WORM GEAR	66	LP40815-001A	←	←	←
HELICAL GEAR	67	LP40816-001B	←	←	←
CONNECT GEAR	68	LP40817-001A	←	←	←

System		VHS		S-VHS	
**Job No.		V15D Series	V16D Series	V15S Series	V16S Series
Part Name	Symbol No.	Part No.	Part No.	Part No.	Part No.
CONTROL PLATE	69	LP10400-001H	←	←	LP10400-001J
TORTION SPRING	70	LP40843-001A	←	←	←
TENSION ARM ASSY	71	LP40818-001B	←	←	←
TENSION SPRING	72	LP40844-001C	LP40844-001E	LP40844-001D	LP40844-001E
TENSION ARM BASE	73	LP21045-001D	←	←	←
TENSION BAND ASSY	74	LP40821-001A	←	←	←
BAND HOLDER-1	75	LP30967-001B	←	←	←
BAND HOLDER-2	76	LP30968-001C	←	←	←
ADJUST PIN	77	LP40822-002B	←	←	←
TENSION ARM LEVER	78	LP31000-005E	←	←	←
MAIN BRAKE(TAKE UP)	79	LP21046-001C	←	←	←
BAND BRAKE ASSY	80	LP40824-001A	←	←	←
BRAKE LEVER	81	LP30969-002A	LP30969-002B	LP30969-002A	LP30969-002B
TENSION SPRING	82	LP30003-033B	←	←	←
TENSION SPRING	83	LP30003-035B	←	←	←
CAPSTAN BRAKE ASSY	84	LP40825-001B	←	←	←
CAPSTAN MOTOR	85	QAR0204-002	←	←	←
SCREW,X3 CAPSTAN MOTOR	86	QYTPSG2606M	QYTPSG2606Z	QYTPSG2606M	QYTPSG2606Z
BELTCAPSTAN MOTOR	87	LP30005-010A	←	←	←
IDLER ARM	88	LP30970-001A	←	←	←
IDLER GEAR 1,X2	89	LP40828-004A	←	←	←
IDLER GEAR 2,X2	90	LP40829-001B	LP40829-002A	LP40829-001B	LP40829-002A
WIRE HOLDER	91	LP31014-001A	←	←	←
CLUTCH UNIT	93	LP40934-001B	←	←	←
SLIT WASHER	94	PQM30017-47	←	←	←
DIRECT GEAR	95	LP30973-001A	←	←	←
COMPRESS. SPRING	96	LP40939-001A	←	←	←
CHANGE LEVER	102	LP30974-001B	←	←	←
REEL DISK,X2	105	LP21049-001A	←	←	←
SPACER,X2	107	LP30017-004A	←	←	←
SIDE FRAME(L)	110	LP10401-001F	LP10401-001H	LP10401-001F	LP10401-001H
SIDE FRAME(R)	111	LP10402-001F	LP10402-001K	LP10402-001G	LP10402-001K
SCREW,X2	112	QYTDST2606Z	←	←	←
TORSION SPRING	113	LP40917-001C	LP40917-001D	←	←
SIDE PLATE	114	LP30976-001D	LP30976-001E	←	←
LIMIT PLATE	115	LP30977-002D	←	←	←
LIMIT SPRING	116	LP40846-001C	←	←	←
DRIVE LEVER	117	LP31100-001B	←	←	←
DRIVE ARM(L)	118	LP30978-001B	←	←	←
DRIVE ARM(R)	119	LP30979-001H	LP30979-001N	LP30979-001H	LP30979-001N
TORSION SPRING	120	LP40847-001B	←	←	←
CONNECT PLATE	121	LP30980-001A	LP30980-001E	LP30980-001B	LP30980-001E
SIDE HOLDER(L)	122	LP10403-001C	←	←	←
SIDE HOLDER(R)	123	LP10404-001D	LP10404-001E	←	←
LOCK LEVER(L)	124	LP30983-001A	LP30983-001B	LP30983-001A	LP30983-001B
LOCK LEVER(R)	125	LP30984-001A	LP30984-001B	LP30984-001A	LP30984-001B
TENSION SPRING,X2	126	LP40924-001C	LP40924-001D	←	←
EARTH SPRING(1)	127	LP40856-001A	←	LP40856-001B	LP40972-001A
EARTH SPRING(2)	128	LP40857-001B	←	←	←
C.HOLDER ASSY	130	LP30981-001E	LP30981-001G	LP30981-001F	LP30981-001G
C.H STOPPER	131	LP31135-001A	-	LP31135-001A	-

System		VHS		S-VHS	
**Job No.		V15D Series	V16D Series	V15S Series	V16S Series
Part Name	Symbol No.	Part No.	Part No.	Part No.	Part No.
R.SAFETY LEVER	134	LP21051-002C	←	←	←
TOP FRAME	137	LP21052-001F	LP21052-001J	LP21052-001H	LP21052-001J
SPACER	138	LP30002-0A7A	-	LP30002-0A7A	-
DOOR OPENER	151	LP30985-001G	←	←	←
TAPE GUIDE	161	-	LP40993-001A	-	LP40993-001A
E-CARD WIRE DRUM.M	WR1	WJT0059-001C	WJT0059-001E	WJT0059-001D	WJT0059-001E
E-CARD WIRE AC HEAD CN2001	WR2	WJT0067-001B	←	←	←
E-FL/RB WIRE LOADING MOTOR	WR3	WJS0022-001A	←	←	←
MEMO	-	PMD0035B-C	PMD0040A-C	PMD0036B-C /PMD0039A-C	PMD0037A-C /PMD0041A-C

NOTE:

MARK ← is same as left.
MARK - is not used.
MARK * shows that Symbol No. and Parts No. may sometimes be different from those in each manual. See the table below for final Symbol No. and Parts No.
MARK ** is Job No.
To identify a model, see the Job No. of the model.
Job No. is shown just above the service manual number at the lower right of the service manual of each model.

PARTS LIST

SAFETY PRECAUTION

Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.

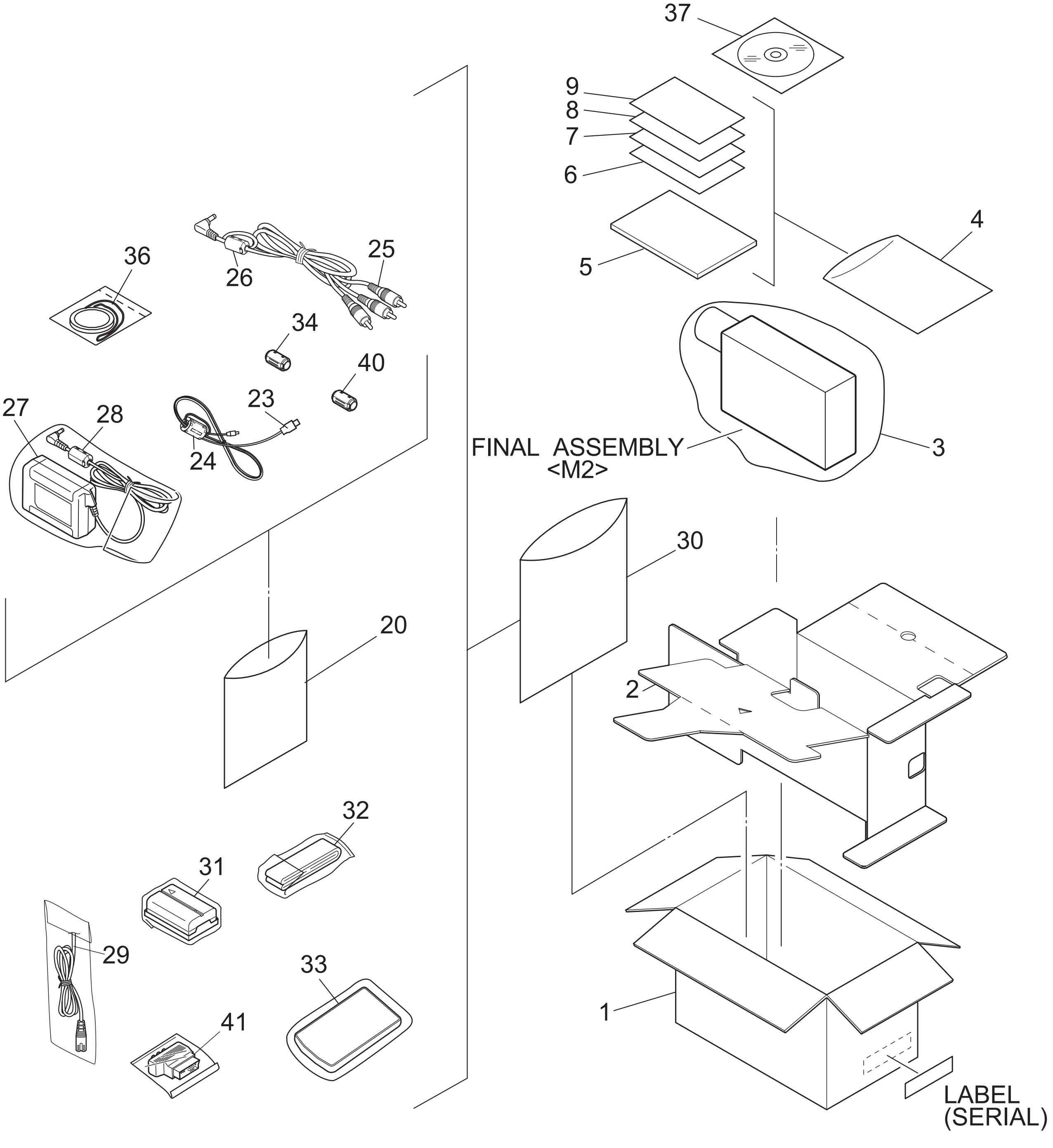
BEWARE OF BOGUS PARTS

Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.

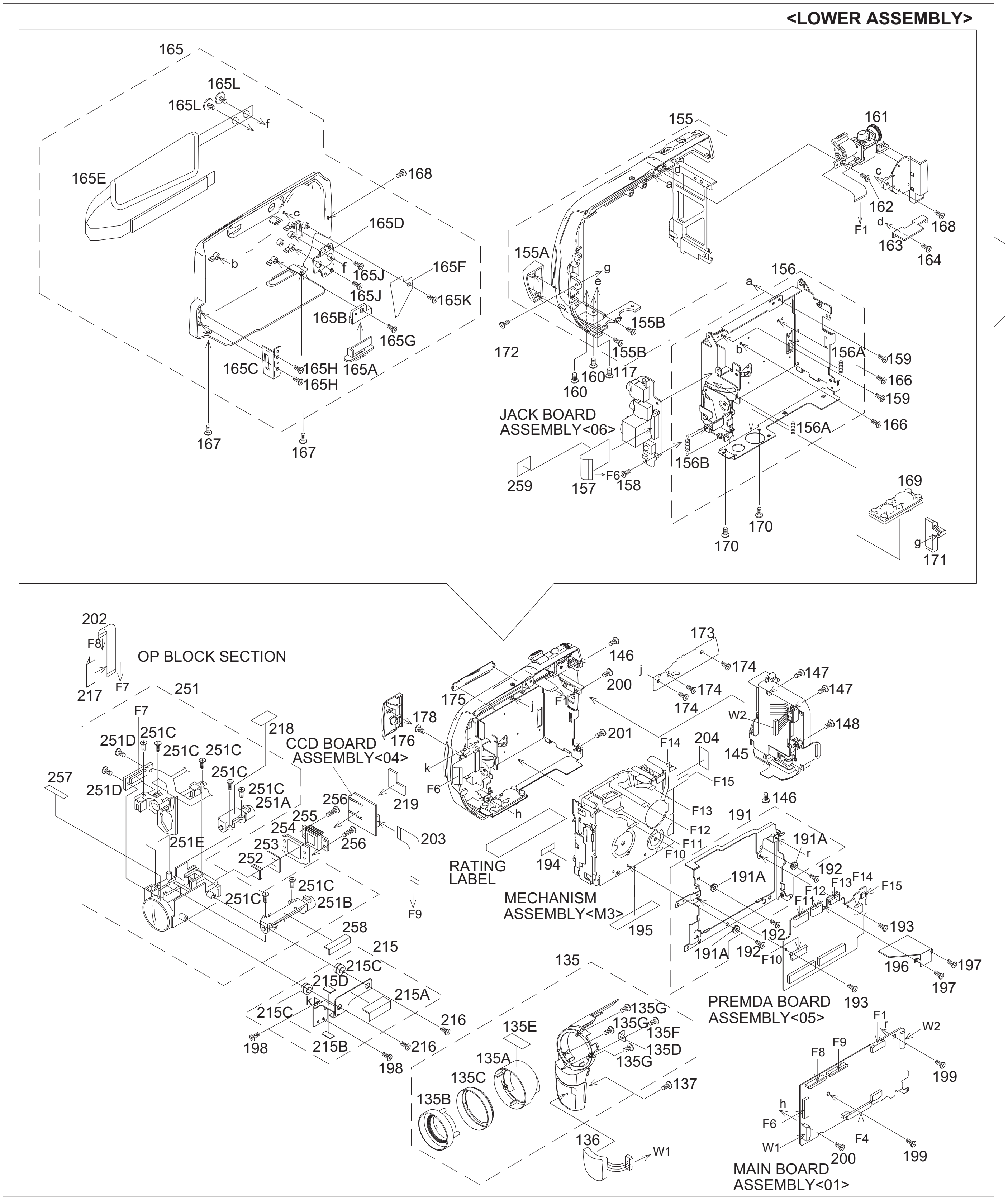
1. EXPLODED VIEW

1.1 PACKING AND ACCESSORY ASSEMBLY <M1>

The instruction manual to be provided with this product will differ according to the destination.


37
9
8
7
6
4
5
36
25
26
34
40
27
28
23
24
FINAL ASSEMBLY
<M2>
3
30
20
2
32
31
29
33
41
1
LABEL
(SERIAL)

1.2 FINAL ASSEMBLY <M2>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165L
165L
f
165E
168
c
165D
b
f
165J
165F
165J
165K
165B
165G
165C
165H
165A
165H
167
167
155
d
a
155A
g
e
155B
172
155B
160
160
117
161
c
162
F1
d
168
163
164
156
a
b
156A
159
166
159
166
156A
JACK BOARD ASSEMBLY<06>
156B
259
157
F6
158
169
170
170
g
171
202
F8
OP BLOCK SECTION
217
F7
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F7
251D
251C
251C
251C
251D
251C
251C
251A
257
251E
218
CCD BOARD ASSEMBLY<04>
256
255
254
253
252
256
219
203
251C
251C
251B
258
F9
215
215C
215D
215A
215C
k
216
198
215B
216
198
175
178
176
k
F6
146
200
F1
j
201
h
RATING LABEL
194
MECHANISM ASSEMBLY<M3>
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173
174
j
174
174
F14
204
F15
F13
F12
F11
F10
147
147
W2
148
145
146
191
191A
r
191A
192
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F13
F14
F15
F11
193
191A
192
192
F10
196
197
197
193
PREMDA BOARD ASSEMBLY<05>
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135G
135G
135E
135F
135D
135A
135G
135C
137
135B
136
W1
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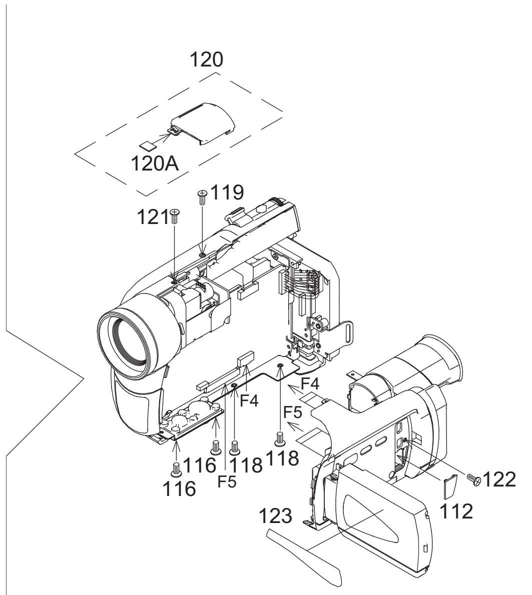
F8
F9
199
h
F6
W1
F4
200
199
MAIN BOARD ASSEMBLY<01>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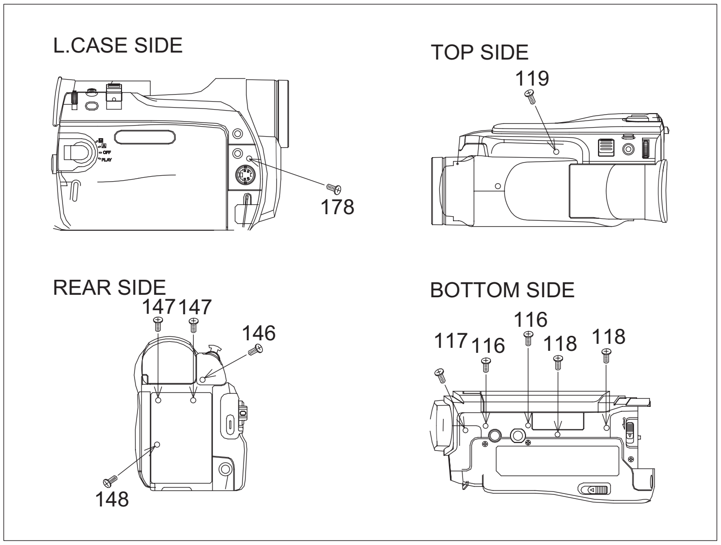
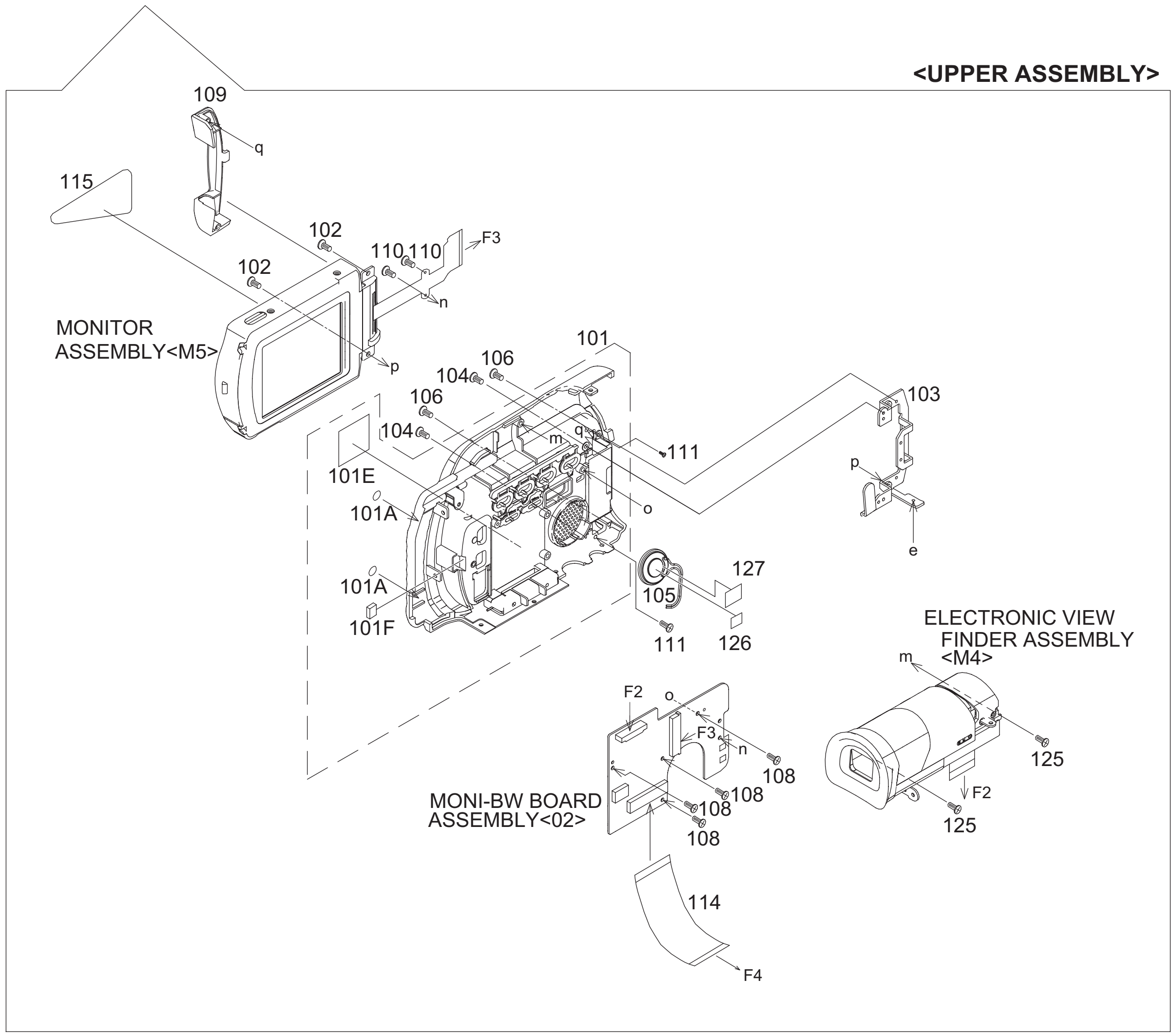
F5


L.CASE SIDE
TOP SIDE
REAR SIDE
BOTTOM SIDE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110
F3
102
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ASSEMBLY<M5>
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106
104
106
104
m
q
111
103
p
101E
101A
o
e
101A
101F
127
105
111
126
ELECTRONIC VIEW
FINDER ASSEMBLY
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F2
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F3
n
108
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108
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MONI-BW BOARD
ASSEMBLY<02>
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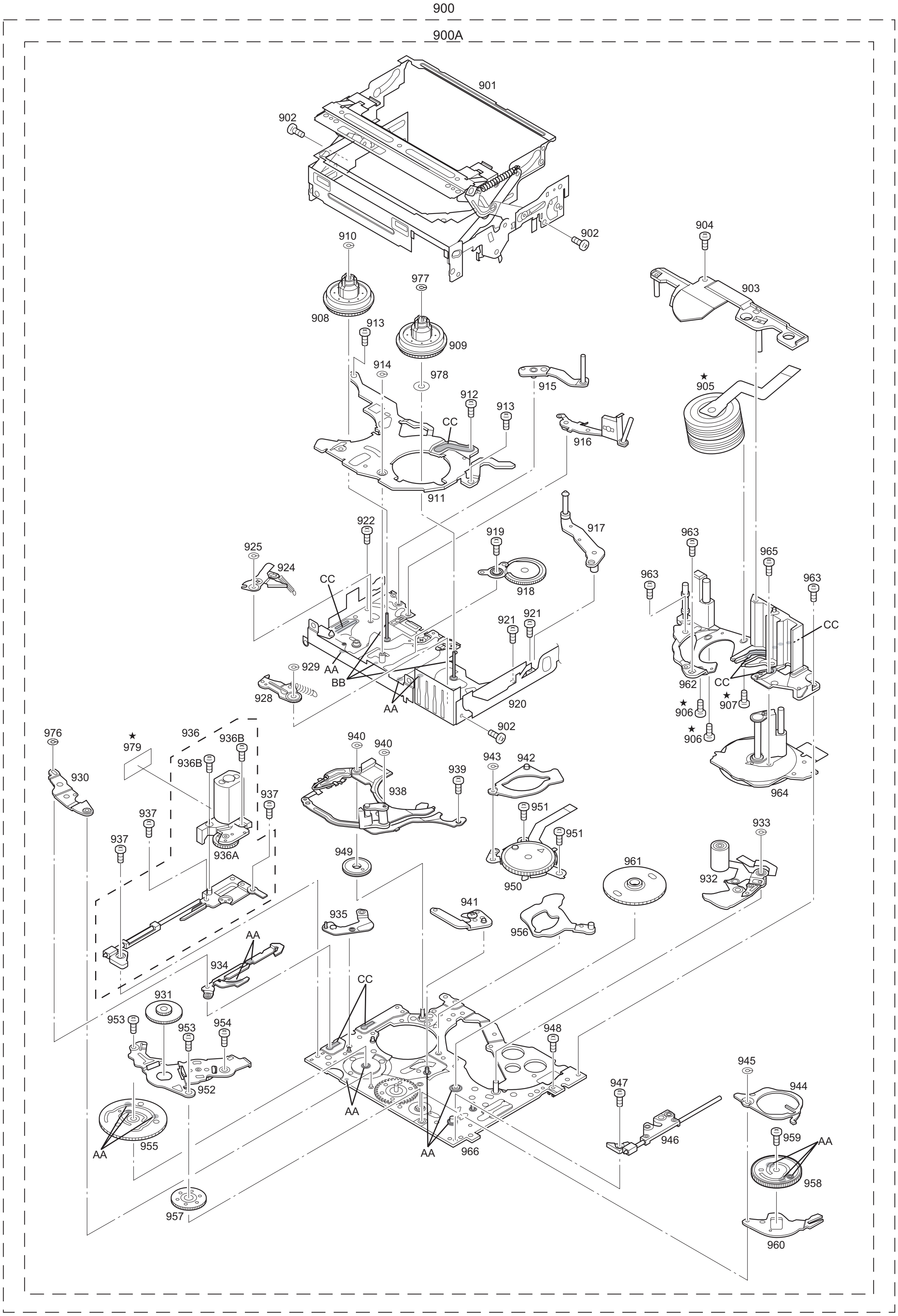
F2
125
114
F4

1.3 MECHANISM ASSEMBLY <M3>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914
978
915
★
905
912
913
CC
916
911
922
919
917
963
965
963
963
925
924
CC
918
921
921
CC
929
AA
BB
928
AA
920
962
CC
★
907
★
906
★
906
902
976
★
979
936
936B
936B
940
940
943
942
939
930
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937
937
951
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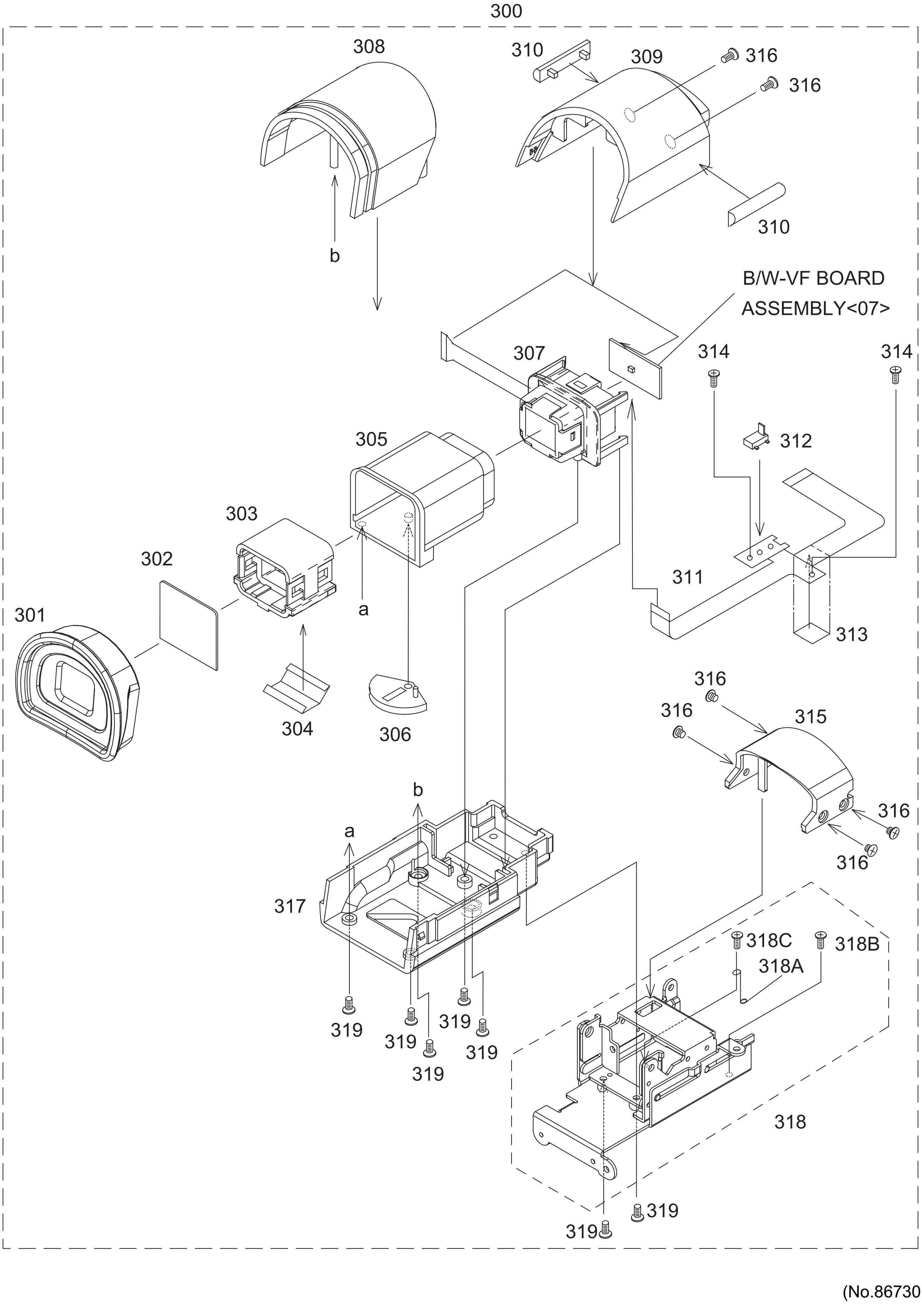
964
933
936A
949
961
932
950
941
935
956
AA
934
931
CC
953
953
954
948
945
947
944
952
AA
955
AA
AA
966
946
959
AA
958
957
960

Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	YTU94027	BB
Grease (HANARL)	RX-410R	CC

NOTE1: The section marked in **AA** and **BB**, **CC** indicate lubrication and greasing areas.

NOTE2: Mark ★ is not contained in 900A.

1.4 ELECTRONIC VIEWFINDER ASSEMBLY <M4>


300
308
310
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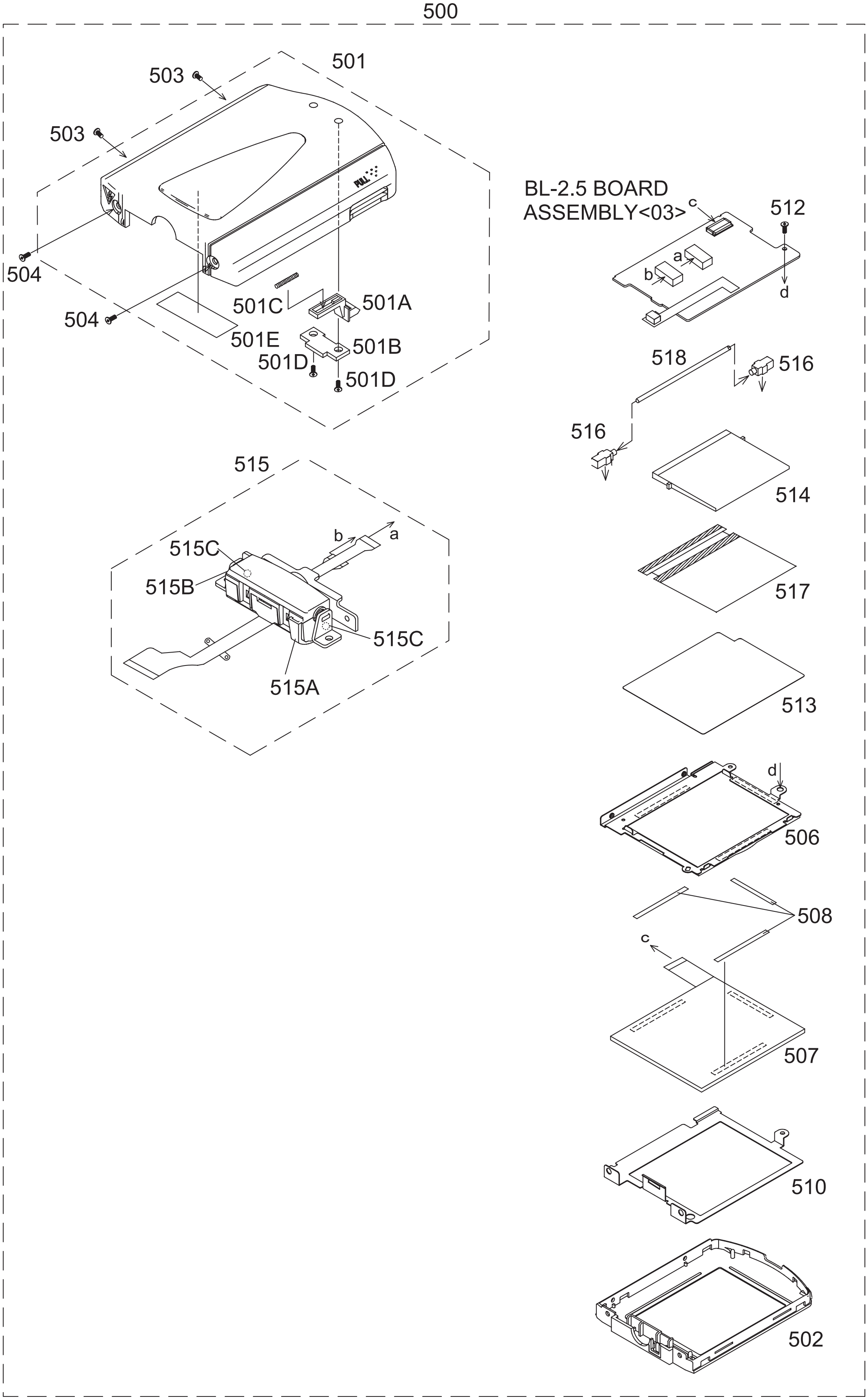
316
316
310
b
B/W-VF BOARD
ASSEMBLY<07>
307
314
314
312
305
303
302
311
a
301
313
304
306
316
316
315
b
a
316
317
316
318C
318B
318A
319
319
319
319
319
318
319
319

1.5 MONITOR ASSEMBLY (2.5 INCH) <M5>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501C
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BL-2.5 BOARD
ASSEMBLY<03>
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a
b
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518
516
516
514
515
b
a
515C
515B
515C
515A
517
513
d
506
508
c
507
510
502

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

2. PARTS LIST

PACKING AND ACCESSORY ASSEMBLY <M1>

⚠ Symbol No.	Part No.	Part Name	Description	Local
1	LY33063-012A	PACKING CASE		A,B,C,D
1	LY33063-015A	PACKING CASE		E
1	LY33063-003A	PACKING CASE		F,G,H,J
2	LY33065-001B	CUSHION		A,B,C,D,E,F,G
2	LY33065-001C	CUSHION		H,J
3	LY30023-027A	POLY BAG		
4	YQM30061-3	POLY BAG		A,E,F
4	QPA02003506	POLY BAG	20cm x 35cm	B,C,D,G,H,J
⚠ 5	LYT1134-001A	INST BOOK	(ENGLISH)	E
⚠ 5	LYT1098-001A	INST BOOK	(ENGLISH)	A,F
⚠ 5	LYT1098-003A	INST BOOK	(FRENCH)	B,G
⚠ 5	LYT1098-004A	INST BOOK	(DUTCH)	B,G
⚠ 5	LYT1098-005A	INST BOOK	(SPANISH)	B,G
⚠ 5	LYT1098-006A	INST BOOK	(ITALIAN)	B,G
⚠ 5	LYT1098-002A	INST BOOK	(GERMAN)	B,C,G,H
⚠ 5	LYT1098-007A	INST BOOK	(DANISH)	C,H
⚠ 5	LYT1098-008A	INST BOOK	(FINNISH)	C,H
⚠ 5	LYT1098-009A	INST BOOK	(SWEDISH)	C,H
⚠ 5	LYT1098-010A	INST BOOK	(NORWEGIAN)	C,H
⚠ 5	LYT1098-011A	INST BOOK	(RUSSIAN)	D,J
⚠ 5	LYT1098-012A	INST BOOK	(CZECH)	D,J
⚠ 5	LYT1098-013A	INST BOOK	(POLISH)	D,J
⚠ 5	LYT1098-014A	INST BOOK	(HUNGARIAN)	D,J
6	LYT1135-001A	INST BOOK	(SOFT.ENGLISH)	E
6	LYT1086-001A	INST BOOK	(SOFT.ENGLISH)	F
6	LYT1086-003A	INST BOOK	(SOFT.FRENCH)	G
6	LYT1086-004A	INST BOOK	(SOFT.DUTCH)	G
6	LYT1086-005A	INST BOOK	(SOFT.SPANISH)	G
6	LYT1086-006A	INST BOOK	(SOFT.ITALIAN)	G
6	LYT1086-002A	INST BOOK	(SOFT.GERMAN)	G,H
6	LYT1086-007A	INST BOOK	(SOFT.DANISH)	H
6	LYT1086-008A	INST BOOK	(SOFT.FINNISH)	H
6	LYT1086-009A	INST BOOK	(SOFT.SWEDISH)	H
6	LYT1086-010A	INST BOOK	(SOFT.NORWEGIAN)	H
6	LYT1086-011A	INST BOOK	(SOFT.RUSSIAN)	J
7	BT-54008-4	WARRANTY CARD		A,E,F
7	BT-54013-5	WARRANTY CARD		B,C,D,G,H,J
8	YU30878	REGIST. CARD		E,F
9	LYT0194-001B	Q.CARD(JUK)		A,E,F
20	QPA01703005	POLY BAG	17cm x 30cm	
23	QAM0451-001	USB CABLE		F,G,H,J
24	QQR0491-002	FERRITE CORE	TDK (BLACK)	F,G,H,J
25	QAM0212-001	A/V CABLE		
26	QQR0918-002	CORE FILTER		
⚠ 27	LY20955-001C	AC ADAPTER	AP-V13E	
⚠ 27	or LY20956-001B	AC ADAPTER	AP-V11E	
28	QQR0917-002	CORE FILTER		
⚠ 29	QMPP110-190-JR	POWER CORD(EK)	1.9m BLACK	A,E,F
⚠ 29	QMPL120-190-JR	POWER CORD(EU)	1.9m BLACK	B,C,D,G,H,J
30	QPA02503505P	POLY BAG	25cm x 35cm	
⚠ 31	LY32566-001A	BATT.PACK ASSY	BN-V408U-B	
32	LY20186-004A	SHOULDER STRAP		
33	LY21020-001A	REMOCON	RM-V718U	
34	QQR0491-002	FERRITE CORE	TDK (BLACK)	
36	LY44002-001B	CAP(HOOD)ASSY		
37	LY32210-059A	CD ROM ASSY		E
37	LY32210-048A	CD ROM ASSY		F,G,H,J
40	QQR0491-002	FERRITE CORE	TDK (BLACK)	
41	QAM0302-001	ADAPTOR PLUG		

FINAL ASSEMBLY <M2>

⚠ Symbol No.	Part No.	Part Name	Description	Local
101	LY20941-007J	U.CASE(2.5)ASSY		A,B,C,D,E
101	LY20941-003J	U.CASE(2.5)ASSY		F,G,H,J
101A	LY40664-001A	SPACER	(x2)	
101E	LY33042-001A	C.LABEL(VF)		
101F	LY30030-0F2A	SPACER(A)		
102	LY30018-0D6A	SPECIAL SCREW	(x2)	
103	LY33044-001D	BKT(HINGE2.5)		
104	LY30018-096A	SPECIAL SCREW	(x2)	
105	QAS0126-001	SPEAKER		
106	LY30018-017A	SPECIAL SCREW	(x2)	
108	LY30018-059A	SPECIAL SCREW	(x4)	
109	LY33049-002A	COVER(UPPER2.5)		
110	LY30018-056A	SPECIAL SCREW	(x2)	
111	LY30018-0E6A	SPECIAL SCREW	(x2)	
112	LY33050-002C	COVER(JIG)		
114	QUQ105-4007AA	FFC WIRE MONI CN761-MAIN CN101		
115	LY33033-001A	ORNAMENT(2.5 2)		A,B,C,D,E
115	LY33009-001A	ORNAMENT(2.5 1)		F,G,H,J
116	LY30018-0E6A	SPECIAL SCREW	(x2)	
117	LY30018-0A1A	SPECIAL SCREW		
118	LY30018-096A	SPECIAL SCREW	(x2)	
119	LY30018-096A	SPECIAL SCREW		
120	LY33025-001B	TOP COVER ASSY		
120A	LY40162-001A	BKT		
121	LY30018-096A	SPECIAL SCREW		
122	LY30018-096A	SPECIAL SCREW		
123	LY44187-006A	STICKER(2)		A,B,C,D,E
123	LY44187-004A	STICKER(2)		F,G,H,J
125	LY30018-0E6A	SPECIAL SCREW	(x2)	
126	LY30030-0E3B	SPACER(A)		
127	LY30030-0E5A	SPACER(A)		
135	LY20943-002E	F.COVER ASSY		
135A	LY33056-001B	HOOD		
135B	LY33057-001A	RING		
135C	LY33058-001A	HOOD(SCREW)		
135D	LY33059-001B	BKT(FRONT)		
135E	LY44186-002A	STICKER(1)		
135F	LY30018-0E6A	SPECIAL SCREW		
135G	LY30018-052A	SPECIAL SCREW	(x3)	
136	LY20944-001B	MIC		
137	LY30018-0G6A	SPECIAL SCREW		
⚠ 145	LY20938-001E	REAR UNIT		
146	LY30018-0G6A	SPECIAL SCREW	(x2)	
147	LY30018-0J1A	SPECIAL SCREW	(x2)	
148	LY30018-0H3A	SPECIAL SCREW		
155	LY20935-002E	LOWER CASE ASSY		
155A	LY33402-001A	COVER(LOWER)		
155B	LY30018-0E6A	SPECIAL SCREW	(x2)	
156	LY20939-001F	ARM ASSY		
156A	LY30002-046B	COMPRES. SPRING	(x2)	
156B	LY43973-001A	TENSION SPRING		
157	QUQ105-2203AA	FFC WIRE JACK CN501-MAIN CN102		
158	LY30018-096A	SPECIAL SCREW		
159	LY30018-059A	SPECIAL SCREW	(x2)	
160	LY30018-096A	SPECIAL SCREW	(x2)	
161	LY10453-001E	ZOOM UNIT		
162	LY30018-0E6A	SPECIAL SCREW		
163	LY33395-001A	BRACKET(ZOOM)		
164	LY30018-059A	SPECIAL SCREW		
165	LY20937-003B	C.COVER ASSY		
165A	LY33027-001B	KNOB(LOCK)		
165B	LY33028-001A	HOLDER(LOCK)		
165C	LY33397-001A	HOOK(G.B)		
165D	LY33039-001A	BKT(G.BELT)		
165E	LY20945-003A	GRIP BELT		
165F	LY44178-001A	SHEET(C.COV)		
165G	LY30018-0E6A	SPECIAL SCREW		
165H	QYSLSF2040D	TAP SCREW	2mm x 4mm(x2)	
165J	QYSLSF2040D	TAP SCREW	2mm x 4mm(x2)	
165K	QYSLSF2040D	TAP SCREW	2mm x 4mm	
165L	LY30018-0H1A	SPECIAL SCREW	(x2)	
166	LY30018-0K3A	SPECIAL SCREW	(x2)	
167	LY30018-096A	SPECIAL SCREW	(x2)	
168	LY30018-059A	SPECIAL SCREW	(x2)	
169	LY31019-001A	BASE		
170	LY30018-0E6A	SPECIAL SCREW	(x2)	
171	LY33396-001B	HOLDER(JACK)		
172	LY30018-0E6A	SPECIAL SCREW		
173	LY33037-001B	COVER(ZOOM)		
174	LY30018-084A	SPECIAL SCREW	(x3)	
175	LY33029-001B	COVER(ADJUST)		
176	LY33024-001C	COVER(JACK)		
178	LY30018-017A	SPECIAL SCREW		
191	LY33019-001B	BKT(MECHA)ASSY		

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
191A	LY42796-003A	BUSH	(x3)	
192	LY30019-028A	SPECIAL SCREW	(x3)	
193	LY30018-056A	SPECIAL SCREW	(x2)	
194	LY40699-002A	LABEL(PUSH)		
195	LY32001-002A	LABEL(HOUSING)		
196	LY33388-001C	SHIELD COVER(PR)		
197	QYSPSPT1414M	SCREW	1.4mm x 1.4mm(x2)	
198	LY30018-096A	SPECIAL SCREW	(x2)	
199	LY30019-038A	SPECIAL SCREW	(x2)	
200	LY30018-096A	SPECIAL SCREW	(x2)	
201	LY30018-017A	SPECIAL SCREW		
202	QUQ105-24X8AA	FPC WIRE OP BLOCK-MAIN CN108		
203	QAL0465-001	FPC CCD CN5001-MAIN CN107		
215	LY43965-001D	BKT(OP)ASSY		
215A	LY30030-095A	SPACER(A)		
215B	LY30030-096A	SPACER(A)		
215C	LY43966-001A	RUBBER(OP)	(x2)	
215D	LY30030-0E5A	SPACER(A)		
216	LY30018-0G9A	SPECIAL SCREW	(x2)	
217	LY30030-057A	SPACER(A)		
218	LY30030-050A	SPACER(A)		
219	LY30030-060A	SPACER(A)		
251	LY33085-001F	OP BLOCK ASSY		
251A	LY30724-001B	FOCUS MOTOR		
251B	LY30723-001B	ZOOM MOTOR		
251C	PTY33085-001	SCREW	(x7)	
251D	PTY31727-116	SCREW	(x2)	
251E	PTY33085-007	IRIS MOTOR UNIT		
252	LY44120-001A	OP LPF		
253	LY44005-001A	SHEET		
254	LY33288-001A	SPACER		
255	LYH30446-002A	CCD BASE ASSY		
256	LY30018-0E7A	SPECIAL SCREW	(x2)	
257	LY30030-093A	SPACER(A)		
258	LY30030-094A	SPACER(A)		
259	LY30029-0Q7A	SPACER(A)		

MECHANISM ASSEMBLY <M3>

⚠ Symbol No.	Part No.	Part Name	Description	Local
900	YMA0029H	MECHA(A)ASSY		
900A	YMA0029D	MECHA(A)ASSY		
901	LY32870-001G	CASSETTEHOUSING ASSY		
902	YQ43893-8	MINI SCREW	(x3)	
903	LYH30420-001A	UPPER BASE ASSY		
904	QYSPSPU1425M	SCREW		
905	YDV2102B	DRUM ASSY		
906	LY42820-001A	DAMP.SCREW ASSY	(x2)	
907	LY42820-002A	DAMP.SCREW ASSY		
908	LY31538-001F	REEL DISK ASSY		
909	LY31538-002H	REEL DISK ASSY		
910	YQ44246	SLIT WASHER		
911	LY10372-001D	REEL COVER ASSY		
912	LY42120-002A	MINI SCREW		
913	LY41945-003A	MINI SCREW	(x2)	
914	YQ44246	SLIT WASHER		
915	LY43725-001D	TENSION ARM ASSY		
916	LYH40269-001A	SLANT POLE ARM ASSY		
917	LY43731-001F	TU ARM ASSY		
918	LY31531-001D	SWING ARM ASSY		
919	YQ43893	MINI SCREW		
920	LYH30424-001A	SLIDE DECK FINAL ASSY		
921	YQ43893	MINI SCREW	(x2)	
922	LY43023-001A	MINI SCREW		
924	LYH30419-001A	PAD ARM ASSY		
925	YQ44246	SLIT WASHER		
928	LYH40270-001A	TU BRAKE ASSY		
929	YQ44246	SLIT WASHER		
930	LY43684-001A	TENSION CONTROL LEVER ASSY		
931	LY32861-001A	CENTER GEAR		
932	LY31516-001F	PINCH ROLLER ARM FINAL ASSY		
933	YQ44246	SLIT WASHER		
934	LY43681-001A	TENSION CONTROL PLATE ASSY		
935	LY43687-001A	BRAKE CONTROL LEVER ASSY		
936	LYH30421-001A	MOTOR BRACKET ASSY		

⚠ Symbol No.	Part No.	Part Name	Description	Local
936A	QAR0138-001	LOADING MOTOR		
936B	LY41940-001A	TAPPING SCREW	(x2)	
937	YQ43893	MINI SCREW	(x3)	
938	LYH30422-001A	GUIDE RAIL ASSY		
939	YQ43893	MINI SCREW		
940	YQ44246	SLIT WASHER	(x2)	
941	LY32843-001A	SLIDE LEVER2 ASSY		
942	LY43690-001A	LOADING PLATE ASSY		
943	YQ44246	SLIT WASHER		
944	LY32858-001A	EJECT LEVER		
945	YQ44246	SLIT WASHER		
946	LYH40271-001A	BASE R ASSY		
947	YQ43893	MINI SCREW		
948	LY41945-001B	MINI SCREW		
949	LY43665-001A	MODE GEAR		
950	QSW0876-003	ROTARY ENCODER		
951	YQ43893	MINI SCREW	(x2)	
952	LY32860-001A	GEAR COVER ASSY		
953	YQ43893	MINI SCREW	(x2)	
954	YQ43893-4	MINI SCREW		
955	LY43676-001A	MAIN CAM ASSY		
956	LY41941-001B	SLIDE ARM ASSY		
957	LY43678-001A	CONNECT GEAR 2		
958	LY41954-001C	SUB CAM ASSY		
959	LY42120-001A	MINI SCREW		
960	LY43692-001A	CONTROL ARM ASSY		
961	LY32859-001A	REEL GEAR 1		
962	LY31508-002B	DRUM BASE ASSY		
963	QYSPSPU1425M	SCREW	1.4mm x 2.5mm(x3)	
964	QAR0142-001	CAPSTAN MOTOR		
965	YQ43893	MINI SCREW		
966	LY10367-001D	MAIN DECK ASSY		
976	YQ44246	SLIT WASHER		
977	YQ44246-6	SLIT WASHER		
978	LY42047-005A	WASHER		
979	LY43987-001B	SPACER		

ELECTRONIC VIEWFINDER ASSEMBLY<M4>

⚠ Symbol No.	Part No.	Part Name	Description	Local
300	LY21043-001E	VF ASSY		
301	LY32995-001B	EYE CUP		
302	LY43961-001B	SHEET(LENS)		
303	LY32472-001A	LENS ASSY		
304	LY43868-001A	SPRING(LENS)		
305	LY32993-001C	GUIDE LENS(VF)		
306	LY33006-001C	LEVER(LENS)		
307	LY33442-001B	LCD UNIT ASSY		
308	LY20931-001B	U.CASE(VF)R		
309	LY20930-001B	U.CASE(VF)F		
310	LY33083-001A	PROTECTOR(VF)	(x2)	
311	QAL0466-002	FPC		
312	NSW0200-001X	LEVER SWITCH VF SW		
313	LY30030-059B	SPACER(A)		
314	LY30018-031A	SPECIAL SCREW	(x2)	
315	LY32996-001B	COVER(VF)		
316	LY30018-022A	SPECIAL SCREW	(x6)	
317	LY20929-001C	B.CASE(VF)		
318	LY33076-001E	VF HINGE ASSY		
318A	LY43962-001C	TOR.SPRING		
318B	LY30019-048A	SPECIAL SCREW		
319	LY30018-084A	SPECIAL SCREW	(x7)	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

MONITOR ASSEMBLY (2.5 INCH) <M5>

⚠ Symbol No.	Part No.	Part Name	Description	Local
500	LY21042-004B	MONITOR ASSY		
501	LY20932-003E	M.COVER(2.5)ASSY		
501A	LY33007-001C	KNOB(LOCK)M		
501B	LY33008-001A	HOLDER(LOCK)M		
501C	LY30002-047A	COMPRES. SPRING		
501D	LY30018-0C8A	SPECIAL SCREW	(x2)	
501E	LY30030-0E5A	SPACER(A)		
502	LY10407-001C	MONI.CASE(2.5)		
503	QYSPSPT1730R	SCREW	1.7mm x 3mm(x2)	
504	LY30018-0K9A	SPECIAL SCREW	(x2)	
506	LY33011-001C	LCD FRAME(2.5)		
507	QLD0262-001	LCD MODULE		
508	LY30029-0R5A	SPACER(A)	(x3)	
510	LY33010-001A	SHIELD CASE(2.5)		
512	QYSPSPT1720R	SCREW	1.7mm x 2mm	
513	LY33012-001A	DIFF.SHEET(2.5)		
514	LY43938-001A	LIGHT SCREEN		
515	LY33013-003B	MONI.HINGE ASSY		
515A	LY33015-002A	HINGE COVER(U)		
515B	LY32969-002A	HINGE COVER(L)		
515C	LY30018-0K1A	SPECIAL SCREW	(x2)	
516	LY43936-001A	HOLDER(LAMP)	(x2)	
517	LY43396-001A	SHEET(REFLECT)		
518	QLL0142-001	LAMP		

MAIN BOARD ASSEMBLY <01>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB10404J-02	MAIN BOARD ASSY		A,B,C,D,E
PW1	YB10404K-02	MAIN BOARD ASSY		F,G,H,J
IC1001	MN103S33NJD	IC(MICRO C ROM)		
IC1001 or	MN103SF33NY4JD	IC(MICRO C ROM)		
IC1002	MB90097PFV149-X	IC(MICRO C ROM)		
IC1003	SN74AHC1G00K-X	IC		
IC1003 or	SN74AHC1G00DC-X	IC		
IC1004	S-89220ACNC-W	IC		
IC1005	X25330S8I-2.5-X	IC		
IC1005 or	AT25320N-10SI-X	IC		
IC1005 or	M95320-WMN6-X	IC		
IC1005 or	25LC320-I/SN-X	IC		
IC1005 or	CAT25C32SI-X	IC		
IC1006	RS5C314-X	IC		
IC1007	IC-PST3423U-X	IC		
IC1007 or	S-80823CNNB-X	IC		
IC2101	AK5355VT-X	IC		F,G,H,J
IC2201	AK4564VQ	IC		
IC3001	JCY0152	IC		
IC3002	BU2501FV-X	IC		
IC3005	JCY0136-X	IC		
IC3701	BA7665FS-X	IC		
IC3851	JCP8055FP	IC		
IC4201	HD49340NP-X	IC		
IC4202	MM1613AN-X	IC		
IC4301	JCY0200	IC		
IC4302	R1160N151B-X	IC		
IC4802	BA10358FVM-W	IC		
IC4803	BA10358FVM-W	IC		
IC4804	UPC358G2/5/-W	IC		
IC4851	UPD16879GS-X	IC		
IC5501	JCY0185	IC		
IC6001	FA3698F	IC		
IC6801	R1224N102G-X	IC		
IC8701	PIX-MC10	IC		F,G,H,J
IC8702	MT48LC1M16TG-6S	IC		F,G,H,J
Q1001	DTA114EE-X	DIGI TRANSISTOR		
Q1001 or	PDTA114EE-X	DIGI TRANSISTOR		
Q1001 or	RN2102-X	DIGI TRANSISTOR		
Q1001 or	BCR183T-X	DIGI TRANSISTOR		
Q1002	UMC3N-W	DIGI TRANSISTOR		
Q1003	UMC3N-W	DIGI TRANSISTOR		
Q1004	UMC3N-W	DIGI TRANSISTOR		
Q1005	DTC143XE-X	DIGI TRANSISTOR		
Q1006	UMC3N-W	DIGI TRANSISTOR		
Q1007	2SC4617/QR/-X	TRANSISTOR		
Q1007 or	BC847BT-X	TRANSISTOR		
Q1008	DTC124EE-X	DIGI TRANSISTOR		
Q1008 or	PDTC124EE-X	DIGI TRANSISTOR		
Q1008 or	BCR141T-X	DIGI TRANSISTOR		
Q1009	2SJ347-X	MOS FET		
Q2001	UMX1N-W	PAIR TRANSISTOR		
Q2001 or	BC847S-X	PAIR TRANSISTOR		
Q2002	UMX1N-W	PAIR TRANSISTOR		
Q2002 or	BC847S-X	PAIR TRANSISTOR		
Q2003	UMX1N-W	PAIR TRANSISTOR		
Q2003 or	BC847S-X	PAIR TRANSISTOR		
Q2004	UMX1N-W	PAIR TRANSISTOR		
Q2004 or	BC847S-X	PAIR TRANSISTOR		
Q2005	UMX1N-W	PAIR TRANSISTOR		
Q2005 or	BC847S-X	PAIR TRANSISTOR		
Q2006	UMX1N-W	PAIR TRANSISTOR		
Q2006 or	BC847S-X	PAIR TRANSISTOR		
Q2202	UMX1N-W	PAIR TRANSISTOR		
Q2202 or	BC847S-X	PAIR TRANSISTOR		
Q2401	2SC4617/QR/-X	TRANSISTOR		
Q2401 or	BC847BT-X	TRANSISTOR		
Q2403	2SC4617/QR/-X	TRANSISTOR		
Q2403 or	BC847BT-X	TRANSISTOR		
Q3001	2SC4617/RS/-X	TRANSISTOR		
Q3001 or	BC847BT-X	TRANSISTOR		
Q3002	2SC4617/RS/-X	TRANSISTOR		
Q3002 or	BC847BT-X	TRANSISTOR		
Q3701	UMT1N-W	PAIR TRANSISTOR		

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
Q3701 or	XP4401-W	TRANSISTOR		
Q3701 or	BC856S-X	PAIR TRANSISTOR		
Q3702	UMZ1N-W	PAIR TRANSISTOR		
Q3702 or	XP4601-W	TRANSISTOR		
Q3704	2SA1774/RS/-X	TRANSISTOR		
Q3704 or	BC857BT-X	TRANSISTOR		
Q3705	UMT1N-W	PAIR TRANSISTOR		
Q3705 or	XP4401-W	TRANSISTOR		
Q3705 or	BC856S-X	PAIR TRANSISTOR		
Q4801	2SC4655/BC/-X	TRANSISTOR		
Q4806	2SC4617/QR/-X	TRANSISTOR		
Q4806 or	BC847BT-X	TRANSISTOR		
Q4851	2SC4617/RS/-X	TRANSISTOR		
Q4851 or	BC847BT-X	TRANSISTOR		
Q6101	SSM5G01TU-X	MOS FET		
Q6102	2SA1577/QR/-X	TRANSISTOR		
Q6102 or	BC807-25W-X	TRANSISTOR		
Q6201	SSM5G01TU-X	MOS FET		
Q6301	SSM5G01TU-X	MOS FET		
Q6302	2SA1577/QR/-X	TRANSISTOR		
Q6302 or	BC807-25W-X	TRANSISTOR		
Q6303	2SC4617/QR/-X	TRANSISTOR		
Q6303 or	BC847BT-X	TRANSISTOR		
Q6401	SSM5G01TU-X	MOS FET		
Q6501	SSM5G01TU-X	MOS FET		
Q6601	CPH3314-X	MOS FET		
Q6602	UMX1N-W	PAIR TRANSISTOR		
Q6602 or	HN1C01FU/G/-X	PAIR TRANSISTOR		
Q6602 or	BC847S-X	PAIR TRANSISTOR		
Q6603	2SA1577/QR/-X	TRANSISTOR		
Q6603 or	BC807-25W-X	TRANSISTOR		
Q6604	DTC144EE-X	DIGI TRANSISTOR		
Q6604 or	BCR148T-X	DIGI TRANSISTOR		
Q6605	UMT1N-W	PAIR TRANSISTOR		
Q6605 or	HN1A01FU/G/-X	PAIR TRANSISTOR		
Q6605 or	BC856S-X	PAIR TRANSISTOR		
Q6606	2SC4617/QR/-X	TRANSISTOR		
Q6606 or	BC847BT-X	TRANSISTOR		
Q6701	CPH3314-X	MOS FET		
Q6801	FML9-W	TRANSISTOR		
D1001	DA221-X	DIODE ARRAY		
D3001	EC2C01C-X	VARI CAP DIODE		
D3002	EC2C01C-X	VARI CAP DIODE		
D3003	EC2C01C-X	VARI CAP DIODE		
D3004	MA2Z720-X	SB DIODE		
D5501	1SS355-X	SI DIODE		
D6601	RB481K-X	SB DIODE		
D6602	RB480Y-W	SB DIODE		
D6701	RB160M-30-X	SB DIODE		
D6702	RB160M-30-X	SB DIODE		
⚠ D6801	RB715F-X	SB DIODE		
D8702	EMZ6.8N-X	Z DIODE		F,G,H,J
D8703	EMZ6.8N-X	Z DIODE		F,G,H,J
C1001	NDCA1HJ-8R0W	C CAPACITOR	8pF 50V J	
C1002	NDCA1HJ-100W	C CAPACITOR	10pF 50V J	
C1004	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1005	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1007	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1008	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1009	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1010	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1011	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1012	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1013	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1014	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1015	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1019	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1020	NCBA1EK-682W	C CAPACITOR	6800pF 25V K	
C1021	NCBA1EK-682W	C CAPACITOR	6800pF 25V K	
C1022	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1024	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1025	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1029	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1030	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C1032	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1035	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	

⚠ Symbol No.	Part No.	Part Name	Description	Local
C1036	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1037	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1038	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1039	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1040	NDCA1HJ-100W	C CAPACITOR	10pF 50V J	
C1041	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1042	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1043	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1044	NDCA1HJ-470W	C CAPACITOR	47pF 50V J	
C1045	NDCA1HJ-470W	C CAPACITOR	47pF 50V J	
C1046	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C1047	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1048	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1049	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1050	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1051	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C1052	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C1053	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C1054	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C1055	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1064	NBE20JM-226X	TA E CAPACITOR	22uF 6.3V M	
C2105	NCBA1HK-222W	C CAPACITOR	2200pF 50V K	F,G,H,J
C2106	NCBA1HK-222W	C CAPACITOR	2200pF 50V K	F,G,H,J
C2107	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	F,G,H,J
C2108	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C2109	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C2110	NBE20JM-475X	TA E CAPACITOR	4.7uF 6.3V M	F,G,H,J
C2201	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2202	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2203	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2204	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2205	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2209	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2210	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2211	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2212	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2213	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2214	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2215	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2216	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2217	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2218	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2223	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2224	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2401	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2402	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2403	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2404	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2405	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2406	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2603	NCBA1CK-153W	C CAPACITOR	0.015uF 16V K	
C2604	NCBA1CK-153W	C CAPACITOR	0.015uF 16V K	
C2605	NCBA1EK-472W	C CAPACITOR	4700pF 25V K	
C2606	NCBA1EK-472W	C CAPACITOR	4700pF 25V K	
C2607	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C2608	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C2611	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2612	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2613	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2614	NDCA1HJ-101W	C CAPACITOR	100pF 50V J	
C2615	NDCA1HJ-101W	C CAPACITOR	100pF 50V J	
C3001	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3003	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3005	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3006	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3007	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C3008	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3009	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3011	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3012	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3013	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3015	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3016	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3017	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3020	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3021	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3022	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3023	NDCA1HJ-330W	C CAPACITOR	33pF 50V J	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
C3024	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C3025	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3026	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3027	NCBA1EK-472W	C CAPACITOR	4700pF 25V K	
C3028	NDCA1EJ-271W	C CAPACITOR	270pF 25V J	
C3029	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3030	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3031	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3032	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C3033	NDCA1HJ-220W	C CAPACITOR	22pF 50V J	
C3036	NDCA1HJ-8R0W	C CAPACITOR	8pF 50V J	
C3037	NDCA1HJ-8R0W	C CAPACITOR	8pF 50V J	
C3038	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3039	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3042	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3043	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3044	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3045	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3046	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3047	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3048	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C3049	NCBA1HK-222W	C CAPACITOR	2200pF 50V K	
C3050	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3055	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3059	NBE20GM-226X	TA E CAPACITOR	22uF 4V M	
C3060	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3064	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C3066	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3067	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C3069	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3701	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3702	NDCA1HJ-560W	C CAPACITOR	56pF 50V J	
C3703	NDCA1HJ-270W	C CAPACITOR	27pF 50V J	
C3704	NDCA1HJ-680W	C CAPACITOR	68pF 50V J	
C3705	NDCA1HJ-270W	C CAPACITOR	27pF 50V J	
C3706	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3707	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3708	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3709	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3712	NEA70GM-337X	E CAPACITOR	330uF 4V M	
C3713	NEA70GM-337X	E CAPACITOR	330uF 4V M	
C3715	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3801	NCB21AK-105X	C CAPACITOR	1uF 10V K	
C3802	NCB21AK-105X	C CAPACITOR	1uF 10V K	
C3803	NBE20GM-476X	TA E CAPACITOR	47uF 4V M	
C3804	NBE20GM-476X	TA E CAPACITOR	47uF 4V M	
C3851	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3852	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3853	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3854	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3855	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3856	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3857	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3858	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3859	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3860	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3861	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4201	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C4202	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4203	NCB21AK-105X	C CAPACITOR	1uF 10V K	
C4204	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4205	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4206	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C4207	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4208	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C4209	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4210	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4211	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4212	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4213	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4214	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4216	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4301	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4302	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4303	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4304	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4305	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4306	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4307	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4308	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4309	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4310	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4311	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4312	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4313	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C4314	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4315	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4316	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4317	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4803	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C4804	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4806	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4808	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C4809	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4810	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4811	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4812	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4813	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4814	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4815	NCB31HK-152X	C CAPACITOR	1500pF 50V K	
C4819	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C4851	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C4852	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4853	NBE21AM-335X	TA E CAPACITOR	3.3uF 10V M	
C4854	NBE21AM-106X	TA E CAPACITOR	10uF 10V M	
C4855	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C4858	NDCA1HJ-330W	C CAPACITOR	33pF 50V J	
C4859	NCBA1CK-223W	C CAPACITOR	0.022uF 16V K	
C4860	NCBA1CK-223W	C CAPACITOR	0.022uF 16V K	
C4861	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4862	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4864	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C4865	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5501	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5503	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5504	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5506	NBE40GM-476X	TA E CAPACITOR	47uF 4V M	
C5507	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5508	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5509	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5510	NBP21VM-105X	TA E CAPACITOR	1uF 35V M	
C5511	NBZ0003-475X	TA E CAPACITOR	4.7uF 20V M	
C5512	NBE21AM-106X	TA E CAPACITOR	10uF 10V M	
C5513	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5514	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5515	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5516	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5517	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5518	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5519	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C6002	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6003	NEA71CM-106X	E CAPACITOR	10uF 16V M	
C6004	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6021	NCB21CK-104X	C CAPACITOR	0.1uF 16V K	
C6022	NCB21CK-104X	C CAPACITOR	0.1uF 16V K	
C6023	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6024	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6025	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6026	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6027	NCBA1EK-472W	C CAPACITOR	4700pF 25V K	
C6029	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6030	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6031	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6032	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6033	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C6034	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C6035	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C6036	NDCA1HJ-101W	C CAPACITOR	100pF 50V J	
C6037	NCB21CK-473X	C CAPACITOR	0.047uF 16V K	
C6038	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C6039	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C6040	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C6041	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C6042	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C6043	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C6044	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
C6045	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6101	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6103	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C6104	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6105	NCBA1HK-561W	C CAPACITOR	560pF 50V K	
C6106	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6201	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6203	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C6204	NCBA1EK-472W	C CAPACITOR	4700pF 25V K	
C6301	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6303	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C6304	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6401	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6403	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6405	NCB31CK-683X	C CAPACITOR	0.068uF 16V K	
C6501	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6503	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6505	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6601	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6602	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6603	NCB11EK-105X	C CAPACITOR	1uF 25V K	
C6605	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6606	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6607	NCB11EK-105X	C CAPACITOR	1uF 25V K	
C6608	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C6609	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6701	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6703	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6801	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6802	NBE40JM-476X	TA E CAPACITOR	47uF 6.3V M	
C6804	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6807	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C6809	NDCA1HJ-151W	C CAPACITOR	150pF 50V J	
C8701	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	F,G,H,J
C8702	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	F,G,H,J
C8703	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8704	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8705	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8706	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8707	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8708	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8709	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8710	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8711	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8712	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8719	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
R1001	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R1002	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1003	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1006	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1007	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R1008	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1009	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1010	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R1011	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1012	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1013	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1014	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1015	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1016	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1017	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R1018	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R1019	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1020	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1021	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1022	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1023	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1024	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1025	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1027	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R1030	NRSA6AJ-753W	MG RESISTOR	75kΩ 1/16W J	
R1031	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	
R1032	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1033	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1034	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1035	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1037	NRSA6AJ-561W	MG RESISTOR	560Ω 1/16W J	

⚠ Symbol No.	Part No.	Part Name	Description	Local
R1038	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1039	NRSA6AJ-152W	MG RESISTOR	1.5kΩ 1/16W J	
R1040	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1041	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R1042	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R1043	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1044	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1045	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R1046	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1047	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1048	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1049	NRSA6AJ-623W	MG RESISTOR	62kΩ 1/16W J	
R1050	NRSA6AJ-823W	MG RESISTOR	82kΩ 1/16W J	
R1051	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R1052	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1053	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R1054	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1055	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	
R1056	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	
R1057	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1058	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1059	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1060	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1061	NRSA6AJ-561W	MG RESISTOR	560Ω 1/16W J	
R1062	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	
R1063	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R1064	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1065	NRSA6AJ-153W	MG RESISTOR	15kΩ 1/16W J	
R1066	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1067	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	
R1068	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1069	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1070	NRSA6AJ-154W	MG RESISTOR	150kΩ 1/16W J	
R1071	NRSA6AJ-272W	MG RESISTOR	2.7kΩ 1/16W J	
R1072	NRSA6AJ-183W	MG RESISTOR	18kΩ 1/16W J	
R1073	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1074	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R1075	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R1076	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R1077	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1078	NRSA6AJ-393W	MG RESISTOR	39kΩ 1/16W J	
R1079	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R1080	NRSA6AJ-822W	MG RESISTOR	8.2kΩ 1/16W J	
R1081	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1082	NRSA6AJ-123W	MG RESISTOR	12kΩ 1/16W J	
R1083	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1084	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1085	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1086	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1087	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1088	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1089	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1091	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1092	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1093	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1094	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1095	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1096	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1097	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1099	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R2001	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2002	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2003	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2004	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2005	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2006	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2007	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2008	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2009	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2010	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2011	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2012	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2101	NRSA6AJ-471W	MG RESISTOR	470Ω 1/16W J	F,G,H,J
R2102	NRSA6AJ-471W	MG RESISTOR	470Ω 1/16W J	F,G,H,J
R2105	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R2107	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R2108	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R2109	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
R2110	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R2201	NRSA6AJ-684W	MG RESISTOR	680kΩ 1/16W J	
R2202	NRSA6AJ-564W	MG RESISTOR	560kΩ 1/16W J	
R2203	NRSA6AJ-393W	MG RESISTOR	39kΩ 1/16W J	
R2204	NRSA6AJ-154W	MG RESISTOR	150kΩ 1/16W J	
R2206	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R2207	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R2208	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R2209	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R2210	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2211	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2212	NRSA6AJ-2R7W	MG RESISTOR	2.7Ω 1/16W J	
R2213	NRSA6AJ-2R7W	MG RESISTOR	2.7Ω 1/16W J	
R2217	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R2218	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R2219	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2220	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2221	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2222	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R2223	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R2224	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R2225	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2226	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2229	NRSA6AJ-564W	MG RESISTOR	560kΩ 1/16W J	
R2230	NRSA6AJ-564W	MG RESISTOR	560kΩ 1/16W J	
R2231	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R2401	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R2402	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R2403	NRSA6AJ-183W	MG RESISTOR	18kΩ 1/16W J	
R2406	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2407	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R2601	NRSA6AJ-182W	MG RESISTOR	1.8kΩ 1/16W J	
R2602	NRSA6AJ-182W	MG RESISTOR	1.8kΩ 1/16W J	
R2607	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R2608	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R2609	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R2610	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R3002	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3004	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3005	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R3006	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R3007	NRSA6AJ-562W	MG RESISTOR	5.6kΩ 1/16W J	
R3008	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R3009	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3010	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3011	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	
R3013	NRSA6AJ-242W	MG RESISTOR	2.4kΩ 1/16W J	
R3014	NRSA6AJ-392W	MG RESISTOR	3.9kΩ 1/16W J	
R3015	NRSA6AJ-392W	MG RESISTOR	3.9kΩ 1/16W J	
R3016	NRVA6AD-560W	CMF RESISTOR	56Ω 1/16W D	
R3017	NRVA6AD-560W	CMF RESISTOR	56Ω 1/16W D	
R3018	NRVA6AD-560W	CMF RESISTOR	56Ω 1/16W D	
R3019	NRVA6AD-560W	CMF RESISTOR	56Ω 1/16W D	
R3020	NRVA6AD-512W	CMF RESISTOR	5.1kΩ 1/16W D	
R3021	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R3025	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R3027	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3029	NRSA6AJ-822W	MG RESISTOR	8.2kΩ 1/16W J	
R3030	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	
R3031	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	
R3032	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R3034	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R3036	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3037	NRSA6AJ-681W	MG RESISTOR	680Ω 1/16W J	
R3057	NRSA6AJ-151W	MG RESISTOR	150Ω 1/16W J	
R3066	NRSA6AJ-561W	MG RESISTOR	560Ω 1/16W J	
R3067	NRSA6AJ-561W	MG RESISTOR	560Ω 1/16W J	
R3068	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3069	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R3071	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R3074	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3081	NRSA6AJ-471W	MG RESISTOR	470Ω 1/16W J	F,G,H,J
R3082	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	A,B,C,D,E
R3083	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R3701	NRSA6AD-271W	MG RESISTOR	270Ω 1/16W D	
R3702	NRSA6AD-271W	MG RESISTOR	270Ω 1/16W D	
R3703	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R3704	NRSA6AD-301W	MG RESISTOR	300Ω 1/16W D	
R3705	NRSA6AD-301W	MG RESISTOR	300Ω 1/16W D	
R3706	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R3707	NRSA6AD-680W	MG RESISTOR	68Ω 1/16W D	
R3708	NRSA6AD-680W	MG RESISTOR	68Ω 1/16W D	
R3709	NRSA6AD-680W	MG RESISTOR	68Ω 1/16W D	
R3710	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R3711	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R3712	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R3713	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R3714	NRSA6AJ-823W	MG RESISTOR	82kΩ 1/16W J	
R3715	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3722	NRSA6AD-131W	MG RESISTOR	130Ω 1/16W D	
R3724	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R3725	NRSA6AD-131W	MG RESISTOR	130Ω 1/16W D	
R3726	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R3727	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R3728	NRSA6AD-131W	MG RESISTOR	130Ω 1/16W D	
R3730	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R3807	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R3851	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J	
R3852	NRSA6AD-821W	MG RESISTOR	820Ω 1/16W D	
R3853	NRSA6AD-273W	MG RESISTOR	27kΩ 1/16W D	
R3854	NRSA6AD-153W	MG RESISTOR	15kΩ 1/16W D	
R3855	NRSA6AD-821W	MG RESISTOR	820Ω 1/16W D	
R4201	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R4202	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4203	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4204	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4205	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4301	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4303	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4304	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4306	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4307	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R4308	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R4309	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4310	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4315	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4317	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4319	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4321	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4326	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R4327	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4328	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4329	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4330	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4331	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4332	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4333	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4334	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4335	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4336	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4337	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4338	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4339	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4341	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4342	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4343	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4344	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4345	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4346	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4348	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4349	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4350	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4351	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4352	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4353	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4354	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4355	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4356	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4804	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4805	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R4806	NRSA6AJ-683W	MG RESISTOR	68kΩ 1/16W J	
R4807	NRSA6AJ-823W	MG RESISTOR	82kΩ 1/16W J	
R4808	NRSA6AJ-243W	MG RESISTOR	24kΩ 1/16W J	
R4809	NRSA6AJ-681W	MG RESISTOR	680Ω 1/16W J	
R4810	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R4811	NRSA6AJ-824W	MG RESISTOR	820kΩ 1/16W J	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
R4812	NRSA6AJ-153W	MG RESISTOR	15kΩ 1/16W J	
R4814	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R4815	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R4816	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R4817	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	
R4818	NRSA6AJ-154W	MG RESISTOR	150kΩ 1/16W J	
R4819	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R4820	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R4821	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R4822	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R4823	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4824	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R4827	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4828	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4833	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R4836	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4841	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4842	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4843	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4844	NRSA6AJ-151W	MG RESISTOR	150Ω 1/16W J	
R4854	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4856	NRSA6AJ-6R8W	MG RESISTOR	6.8Ω 1/16W J	
R4857	NRSA6AJ-6R8W	MG RESISTOR	6.8Ω 1/16W J	
R4858	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R4859	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4860	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4862	NRSA6AJ-6R8W	MG RESISTOR	6.8Ω 1/16W J	
R4863	NRSA6AJ-6R8W	MG RESISTOR	6.8Ω 1/16W J	
R4864	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4865	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4866	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4867	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4868	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4870	NRSA6AJ-271W	MG RESISTOR	270Ω 1/16W J	
R4871	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4874	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4875	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R5501	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R5503	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R5504	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R5505	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R5506	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R5507	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R5509	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R5511	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R5512	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R5513	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R5514	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R6021	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R6022	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R6023	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R6024	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R6025	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R6026	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R6027	NRSA6AD-103W	MG RESISTOR	10kΩ 1/16W D	
R6028	NRSA6AD-751W	MG RESISTOR	750Ω 1/16W D	
R6029	NRSA6AD-103W	MG RESISTOR	10kΩ 1/16W D	
R6030	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R6031	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R6033	NRSA6AJ-562W	MG RESISTOR	5.6kΩ 1/16W J	
R6034	NRSA6AJ-153W	MG RESISTOR	15kΩ 1/16W J	
R6035	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6036	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6037	NRSA6AD-153W	MG RESISTOR	15kΩ 1/16W D	
R6038	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R6039	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6040	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R6042	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R6044	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	
R6102	NRVA6AD-223W	CMF RESISTOR	22kΩ 1/16W D	
R6103	NRVA6AD-103W	CMF RESISTOR	10kΩ 1/16W D	
R6104	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R6105	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6106	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R6107	NRSA6AD-183W	MG RESISTOR	18kΩ 1/16W D	
R6108	NRSA6AD-123W	MG RESISTOR	12kΩ 1/16W D	
R6109	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R6202	NRSA6AD-123W	MG RESISTOR	12kΩ 1/16W D	
R6203	NRSA6AD-153W	MG RESISTOR	15kΩ 1/16W D	
R6302	NRSA6AD-183W	MG RESISTOR	18kΩ 1/16W D	
R6303	NRSA6AD-472W	MG RESISTOR	4.7kΩ 1/16W D	
R6305	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6306	NRSA6AJ-123W	MG RESISTOR	12kΩ 1/16W J	
R6308	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R6309	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R6402	NRSA6AD-243W	MG RESISTOR	24kΩ 1/16W D	
R6403	NRSA6AD-302W	MG RESISTOR	3kΩ 1/16W D	
R6405	NRSA6AJ-123W	MG RESISTOR	12kΩ 1/16W J	
R6406	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R6407	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6502	NRSA6AD-473W	MG RESISTOR	47kΩ 1/16W D	
R6503	NRSA6AD-562W	MG RESISTOR	5.6kΩ 1/16W D	
R6505	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R6506	NRSA6AJ-273W	MG RESISTOR	27kΩ 1/16W J	
R6602	NRSA6AD-114W	MG RESISTOR	110kΩ 1/16W D	
R6603	NRSA6AD-392W	MG RESISTOR	3.9kΩ 1/16W D	
R6604	NRSA6AD-114W	MG RESISTOR	110kΩ 1/16W D	
R6605	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R6606	NRSA6AD-104W	MG RESISTOR	100kΩ 1/16W D	
R6607	NRSA6AD-473W	MG RESISTOR	47kΩ 1/16W D	
R6608	NRSA6AJ-273W	MG RESISTOR	27kΩ 1/16W J	
R6609	NRSA6AJ-822W	MG RESISTOR	8.2kΩ 1/16W J	
R6610	NRSA6AD-473W	MG RESISTOR	47kΩ 1/16W D	
R6611	NRSA6AD-683W	MG RESISTOR	68kΩ 1/16W D	
R6612	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6613	NRSA6AJ-823W	MG RESISTOR	82kΩ 1/16W J	
R6614	NRSA6AD-104W	MG RESISTOR	100kΩ 1/16W D	
R6615	NRSA6AD-104W	MG RESISTOR	100kΩ 1/16W D	
R6616	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R6617	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R6618	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R6619	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R6701	NRZ0058-R20X	MG RESISTOR	0.2Ω 1/2W J	
R6702	NRSA6AD-114W	MG RESISTOR	110kΩ 1/16W D	
R6703	NRSA6AD-153W	MG RESISTOR	15kΩ 1/16W D	
R6704	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	
R6706	NRSA6AD-823W	MG RESISTOR	82kΩ 1/16W D	
R6707	NRSA6AD-333W	MG RESISTOR	33kΩ 1/16W D	
R6801	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R6803	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R6804	NRVA6AD-563W	CMF RESISTOR	56kΩ 1/16W D	
⚠ R6805	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R6813	NRVA6AD-273W	CMF RESISTOR	27kΩ 1/16W D	
R6815	NRSA6AJ-681W	MG RESISTOR	680Ω 1/16W J	
R8059	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	A,B,C,D,E
R8701	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8702	NRS181J-220X	MG RESISTOR	22Ω 1/8W J	F,G,H,J
R8703	NRS181J-220X	MG RESISTOR	22Ω 1/8W J	F,G,H,J
R8704	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	F,G,H,J
R8705	NRSA6AJ-152W	MG RESISTOR	1.5kΩ 1/16W J	F,G,H,J
R8706	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	F,G,H,J
R8707	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8708	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8709	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	F,G,H,J
R8710	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8711	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8712	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8713	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8715	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8716	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8717	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8718	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8720	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8721	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8722	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	F,G,H,J
R8723	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	F,G,H,J
R8724	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
RA1001	NRZ0034-473W	NET RESISTOR	47kΩ 1/32W J	
RA1002	NRZ0034-104W	NET RESISTOR	100kΩ 1/32W J	
RA1004	NRZ0034-104W	NET RESISTOR	100kΩ 1/32W J	
RA1005	NRZ0034-103W	NET RESISTOR	10kΩ 1/32W J	
RA1006	NRZ0034-102W	NET RESISTOR	1kΩ 1/32W J	
RA1007	NRZ0034-102W	NET RESISTOR	1kΩ 1/32W J	
RA1008	NRZ0034-104W	NET RESISTOR	100kΩ 1/32W J	
RA3001	NRZ0034-560W	NET RESISTOR	56Ω 1/32W J	
RA3002	NRZ0034-560W	NET RESISTOR	56Ω 1/32W J	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
RA3003	NRZ0034-100W	NET RESISTOR	10Ω 1/32W J	
RA3004	NRZ0034-103W	NET RESISTOR	10kΩ 1/32W J	
RA3005	NRZ0040-0R0X	NET RESISTOR	0Ω 1/16W J	
L1001	NQL402M-100X	COIL	10uH M	
L1002	NQL402M-100X	COIL	10uH M	
L2101	NQL315K-100X	COIL	10uH K	F,G,H,J
L2401	NQL402M-100X	COIL	10uH M	
L2402	NQL402M-100X	COIL	10uH M	
L2604	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L3001	NQR0129-002X	FERRITE BEADS		
L3002	NQR0129-002X	FERRITE BEADS		
L3004	NQR0006-001X	FERRITE BEADS		
L3005	NQR0006-001X	FERRITE BEADS		
L3007	NQL085J-2R2X	COIL	2.2uH J	
L3008	NQL085J-120X	COIL	12uH J	
L3012	NQR0129-002X	FERRITE BEADS		
L3014	NQL38DK-100X	P COIL	10uH K	
L3015	NQR0006-001X	FERRITE BEADS		
L3701	NQL38DK-100X	P COIL	10uH K	
L3801	NQR0129-002X	FERRITE BEADS		
L3802	NQR0129-002X	FERRITE BEADS		
L3803	NQR0006-001X	FERRITE BEADS		
L3804	NQL38DK-100X	P COIL	10uH K	
L4201	NQR0129-002X	FERRITE BEADS		
L4301	NQR0129-002X	FERRITE BEADS		
L4302	NQR0129-002X	FERRITE BEADS		
L4802	NQL302N-100X	COIL	10uH N	
L4851	NQR0129-002X	FERRITE BEADS		
L4852	NQL315K-100X	COIL	10uH K	
L4853	NQL315K-100X	COIL	10uH K	
L5501	NQL315K-100X	COIL	10uH K	
L5502	NQR0129-002X	FERRITE BEADS		
L5503	NQR0129-002X	FERRITE BEADS		
L5504	NQR0129-002X	FERRITE BEADS		
L5505	NQL315K-100X	COIL	10uH K	
L5506	NQL315K-100X	COIL	10uH K	
L6001	NQLZ011-4R7X	COIL	4.7uH N	
L6002	NQLZ011-4R7X	COIL	4.7uH N	
L6101	NQL52EM-390X	COIL	39uH M	
L6201	NQL52EM-390X	COIL	39uH M	
L6301	NQL52EM-390X	COIL	39uH M	
L6302	NQL144K-220X	P COIL	22uH K	
L6401	NQL52EM-470X	COIL	47uH M	
L6501	NQL52EM-470X	COIL	47uH M	
L6601	NQL52EM-221X	COIL	220uH M	
L6701	NQL73EM-100X	COIL	10uH M	
L6801	NQL034K-470X	P COIL	47uH K	
L8701	NQR0129-002X	FERRITE BEADS		F,G,H,J
L8702	NQR0129-002X	FERRITE BEADS		F,G,H,J
CN101	QGF0528F1-40X	CONNECTOR	FFC/FPC (1-40)	
CN102	QGF0505F1-22X	CONNECTOR	FFC/FPC (1-22)	
CN104	QGA1002C1-11X	CONNECTOR	W-B (1-11)	
CN105	QGB0509M1-30X	CONNECTOR	B-B (1-30)	
CN106	QGA1201C2-05X	CONNECTOR	W-B (1-5)	
CN107	QGF0503C1-20X	CONNECTOR	FFC/FPC (1-20)	
CN108	QGF0503C1-24V	CONNECTOR	FFC/FPC (1-24)	
CN109	QGF0503F1-16X	CONNECTOR	FFC/FPC (1-16)	
CN110	QGF0528F1-40X	CONNECTOR	FFC/FPC (1-40)	
CN111	QGF0528F1-40X	CONNECTOR	FFC/FPC (1-40)	
⚠ F6001	NMFZ007-2R0X-K	FUSE	2A 32V	
⚠ F6301	NMFZ007-1R25X-K	FUSE	1.25A 32V	
⚠ F6701	NMFZ007-1R25X-K	FUSE	1.25A 32V	
⚠ F6801	NMFZ007-R50X-K	FUSE	0.5A 50V	
J501	NNZ0041-001X	D CONNECTOR	IEEE1394(4pin)	
J502	QNZ0616-001	USB CONNECTOR		F,G,H,J
X1001	NAX0578-001X	CRYSTAL		
X1002	NAX0564-001X	CRYSTAL		
X3002	NAX0480-001X	CRYSTAL	24.576MHz	
X5501	NAX0587-001X	CXO		
X8701	NAX0398-001X	C OSCILLATOR		F,G,H,J
OT1	LY30030-069A	SPACER(A)		
OT2	LY44158-001A	SHEET(SHIELD)		
WR1	QAL0474-001	FPC	MAIN-PREMDA CN401	
WR2	QAL0474-001	FPC	MAIN-PREMDA CN408	

MONI-BW BOARD ASSEMBLY <02>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB10433E	MONI-BW BOARD ASSY		
IC7601	AN12550A	IC		
IC7602	BA4558F-X	IC		
Q7601	2SC4617/QR/-X	TRANSISTOR		
Q7601 or	2SC4738/YG/-X	TRANSISTOR		
Q7601 or	2SD2216J/QR/-X	TRANSISTOR		
Q7601 or	BC847BT-X	TRANSISTOR		
Q7602	2SA1774/QR/-X	TRANSISTOR		
Q7602 or	2SA1832/YG/-X	TRANSISTOR		
Q7602 or	BC857BT-X	TRANSISTOR		
Q7603	2SC4617/QR/-X	TRANSISTOR		
Q7603 or	2SC4738/YG/-X	TRANSISTOR		
Q7603 or	2SD2216J/QR/-X	TRANSISTOR		
Q7603 or	BC847BT-X	TRANSISTOR		
Q7604	2SA1774/QR/-X	TRANSISTOR		
Q7604 or	2SA1832/YG/-X	TRANSISTOR		
Q7604 or	BC857BT-X	TRANSISTOR		
Q7608	DTC144EE-X	DIGI TRANSISTOR		
Q7608 or	UN9213J-X	DIGI TRANSISTOR		
Q7608 or	RN1104-X	DIGI TRANSISTOR		
Q7608 or	BCR148T-X	DIGI TRANSISTOR		
Q7609	2SC4617/QR/-X	TRANSISTOR		
Q7609 or	2SC4738/YG/-X	TRANSISTOR		
Q7609 or	2SD2216J/QR/-X	TRANSISTOR		
Q7609 or	BC847BT-X	TRANSISTOR		
Q7610	DTA114EE-X	DIGI TRANSISTOR		
Q7610 or	BCR183T-X	DIGI TRANSISTOR		
Q7611	DTC144EE-X	DIGI TRANSISTOR		
Q7611 or	UN9213J-X	DIGI TRANSISTOR		
Q7611 or	RN1104-X	DIGI TRANSISTOR		
Q7611 or	BCR148T-X	DIGI TRANSISTOR		
Q7612	DTA144EE-X	DIGI TRANSISTOR		
Q7612 or	UN9113J-X	DIGI TRANSISTOR		
Q7612 or	RN2104-X	DIGI TRANSISTOR		
Q7612 or	BCR198T-X	DIGI TRANSISTOR		
Q7613	2SD2654/VW/-X	TRANSISTOR		
D7602	1SS355-X	SI DIODE		
C1	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C10	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7601	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C7602	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7603	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7604	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7605	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7606	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7607	NCB41CK-106X	C CAPACITOR	10uF 16V K	
C7608	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7609	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7613	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7614	NCB31HK-152X	C CAPACITOR	1500pF 50V K	
C7615	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7616	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7617	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7618	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C7619	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C7620	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7621	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C7622	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C7623	NBE21AM-106X	TA E CAPACITOR	10uF 10V M	
C7624	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7626	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7627	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C7628	NBP41EM-475X	TA E CAPACITOR	4.7uF 25V M	
C7629	NBP21CM-335X	TA E CAPACITOR	3.3uF 16V M	
C7630	NBP41EM-475X	TA E CAPACITOR	4.7uF 25V M	
C7631	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7632	NBP41EM-475X	TA E CAPACITOR	4.7uF 25V M	
C7633	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7634	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7635	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7637	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7646	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
C7647	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7651	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7661	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7662	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7663	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7664	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7665	NBP41CM-226X	TA E CAPACITOR	22uF 16V M	
C7666	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
R3	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R4	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R5	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R6	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R8	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R7601	NRVA63D-622X	CMF RESISTOR	6.2kΩ 1/16W D	
R7602	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R7603	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	
R7608	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R7609	NRVA63D-223X	CMF RESISTOR	22kΩ 1/16W D	
R7610	NRVA63D-433X	CMF RESISTOR	43kΩ 1/16W D	
R7611	NRVA63D-821X	CMF RESISTOR	820Ω 1/16W D	
R7612	NRVA63D-223X	CMF RESISTOR	22kΩ 1/16W D	
R7613	NRVA63D-223X	CMF RESISTOR	22kΩ 1/16W D	
R7614	NRVA63D-223X	CMF RESISTOR	22kΩ 1/16W D	
R7615	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7616	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7617	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	
R7618	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	
R7620	NRSA63J-335X	MG RESISTOR	3.3MΩ 1/16W J	
R7621	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7630	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7634	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7636	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R7637	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R7638	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R7661	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7662	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7663	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R7666	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R7667	NRVA63D-273X	CMF RESISTOR	27kΩ 1/16W D	
R7668	NRVA63D-273X	CMF RESISTOR	27kΩ 1/16W D	
R7669	NRVA63D-392X	CMF RESISTOR	3.9kΩ 1/16W D	
R7672	NRSA63D-394X	MG RESISTOR	390kΩ 1/16W D	
R7673	NRVA63D-473X	CMF RESISTOR	47kΩ 1/16W D	
R7674	NRVA63D-473X	CMF RESISTOR	47kΩ 1/16W D	
R7675	NRSA63J-274X	MG RESISTOR	270kΩ 1/16W J	
L7601	NQL365K-100X	COIL	10uH K	
L7602	NQL365K-470X	COIL	47uH K	
L7603	NQL365K-470X	COIL	47uH K	
L7604	NQL365K-100X	COIL	10uH K	
L7605	NQL365K-100X	COIL	10uH K	
L7607	NQL365K-100X	COIL	10uH K	
CN761	QGF0508F1-40X	CONNECTOR	FFC/FPC (1-40)	
CN763	QGF0507F3-20X	CONNECTOR	FFC/FPC (1-20)	
CN765	QGF0506F2-32X	CONNECTOR	FFC/FPC (1-32)	
SW2	NSW0145-001X	TACT SWITCH STOP		
SW3	NSW0145-001X	TACT SWITCH REW		
SW4	NSW0145-001X	TACT SWITCH FF		
SW5	NSW0145-001X	TACT SWITCH PLAY/PAUSE		
SW7	NSW0145-001X	TACT SWITCH INDEX		
SW8	NSW0145-001X	TACT SWITCH SELECT		
SW7601	NSW0200-001X	LEVER SWITCH MONI SW		

BL-2.5 BOARD ASSEMBLY <03>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB20938A	BL-2.5 BOARD ASSY		
IC7604	DN8797MS-X	IC		
Q7501	2SD1664/QR/-W	TRANSISTOR		
Q7502	2SD1664/QR/-W	TRANSISTOR		
Q7503	DTA144EE-X	DIGI TRANSISTOR		
Q7503 or	UN9113J-X	DIGI TRANSISTOR		
Q7503 or	RN2104-X	DIGI TRANSISTOR		
Q7503 or	BCR198T-X	DIGI TRANSISTOR		
Q7504	DTC144EE-X	DIGI TRANSISTOR		
Q7504 or	UN9213J-X	DIGI TRANSISTOR		
Q7504 or	RN1104-X	DIGI TRANSISTOR		
Q7504 or	BCR148T-X	DIGI TRANSISTOR		
C7501	NCZ1016-120X	C CAPACITOR	12pF 2kV J	
C7502	NCB21EK-273X	C CAPACITOR	0.027uF 25V K	
C7503	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7504	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
R7501	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R7502	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R7503	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R7504	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7511	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7512	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7513	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L7501	NQLZ010-680X	COIL	68uH M	
⚠ T7501	NQS0056-001X	SW TARNSF		
CN7601	QGF0507F3-16X	CONNECTOR	FFC/FPC (1-16)	
CN7602	QGF0507F3-16X	CONNECTOR	FFC/FPC (1-16)	
CN7603	QGF0508F1-24X	CONNECTOR	FFC/FPC (1-24)	
⚠ F7501	NMFZ007-R40X-K	FUSE	0.4A 50V	
WR1	QAL0464-001	FPC		

CCD BOARD ASSEMBLY <04>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB20942A-SS	CCD BOARD ASSY		
Q5001	2SC3931/CD/-X	TRANSISTOR		
C5001	NBP41EM-475X	TA E CAPACITOR	4.7uF 25V M	
C5002	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5003	NBE21AM-106X	TA E CAPACITOR	10uF 10V M	
C5004	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5005	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5006	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5007	NCB31EK-222X	C CAPACITOR	2200pF 25V K	
R5001	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R5002	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
L5001	NQL315K-100X	COIL	10uH K	
L5002	NQL315K-100X	COIL	10uH K	
CN5001	QGF0517F2-20X	CONNECTOR	FFC/FPC (1-20)	

PREMDA BOARD ASSEMBLY <05>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB10405A-01	PREMDA BOARD ASSY		
IC1601	BD6637KS	IC		
IC1701	LM358DMR2-X	IC		
IC1702	LM393DMR2-X	IC		
IC3501	JCY0132	IC		
IC3502	SN74AHC1G04K-X	IC		
Q1601	UMC3N-W	DIGI TRANSISTOR		
D1602	DAP222-X	DIODE ARRAY		
D1602 or	MA132WA-X	SI DIODE		

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
D1603	DAP222-X	DIODE ARRAY		
D1603 or	MA132WA-X	SI DIODE		
D1604	DAP222-X	DIODE ARRAY		
D1604 or	MA132WA-X	SI DIODE		
C1601	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C1602	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C1603	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C1605	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1606	NCB31HK-152X	C CAPACITOR	1500pF 50V K	
C1607	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C1614	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C1618	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C1619	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C1620	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C1621	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C1622	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C1623	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C1624	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C1625	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C1626	NCB31HK-822X	C CAPACITOR	8200pF 50V K	
C1627	NCB31HK-822X	C CAPACITOR	8200pF 50V K	
C1628	NCB21CK-224X	C CAPACITOR	0.22uF 16V K	
C1629	NBP41DM-106X	TA E CAPACITOR	10uF 20V M	
C1630	NCB21CK-334X	C CAPACITOR	0.33uF 16V K	
C1632	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C1633	NCB21CK-474X	C CAPACITOR	0.47uF 16V K	
C1641	NCB21CK-474X	C CAPACITOR	0.47uF 16V K	
C1701	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1702	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C3501	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3502	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3503	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3504	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C3505	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C3506	NCB21AK-105X	C CAPACITOR	1uF 10V K	
C3507	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3508	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3509	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3510	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C3511	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3512	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C3513	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C3514	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C3515	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C3516	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C3517	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3518	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3519	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C3520	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3521	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C3522	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M	
C3523	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3524	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3525	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M	
C3526	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3527	NDC31HJ-221X	C CAPACITOR	220pF 50V J	
C3528	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
R1601	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R1602	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J	
R1603	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R1604	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R1610	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R1611	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R1612	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R1613	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1614	NRZ0072-R330X	MG RESISTOR	0.33Ω 1/4W F	
R1616	NRSA63D-332X	MG RESISTOR	3.3kΩ 1/16W D	
R1617	NRZ0072-R330X	MG RESISTOR	0.33Ω 1/4W F	
R1620	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1621	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1622	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1624	NRSA63D-183X	MG RESISTOR	18kΩ 1/16W D	
R1625	NRSA63D-361X	MG RESISTOR	360Ω 1/16W D	
R1629	NRSA63J-564X	MG RESISTOR	560kΩ 1/16W J	
R1630	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1631	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	

⚠ Symbol No.	Part No.	Part Name	Description	Local
R1635	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R1636	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R1637	NRSA63J-154X	MG RESISTOR	150kΩ 1/16W J	
R1638	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1639	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1640	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1641	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1642	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1648	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1701	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J	
R1702	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1703	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1704	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1705	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1706	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J	
R1707	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1708	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J	
R1709	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1710	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J	
R1711	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1712	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R3501	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R3502	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R3503	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R3504	NRSA63D-241X	MG RESISTOR	240Ω 1/16W D	
R3505	NRSA63D-241X	MG RESISTOR	240Ω 1/16W D	
R3506	NRSA63D-241X	MG RESISTOR	240Ω 1/16W D	
R3507	NRSA63D-241X	MG RESISTOR	240Ω 1/16W D	
R3508	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R3511	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
L3501	NQR0006-001X	FERRITE BEADS		
L3502	NQL402M-100X	COIL	10uH M	
L3503	NQR0006-001X	FERRITE BEADS		
L3504	NQR0006-001X	FERRITE BEADS		
L3505	NQR0006-001X	FERRITE BEADS		
CN401	QGF0528F1-40X	CONNECTOR	FFC/FPC (1-40)	
CN402	QGF0517F1-08X	CONNECTOR	FFC/FPC (1-8)	
CN403	QGF0505F2-06X	CONNECTOR	FFC/FPC (1-6)	
CN404	QGF0507F3-11X	CONNECTOR	FFC/FPC (1-11)	
CN405	QGF0507F3-18X	CONNECTOR	FFC/FPC (1-18)	
CN406	QGF0503F4-16X	CONNECTOR	FFC/FPC (1-16)	
CN407	QGF0508F1-06X	CONNECTOR	FFC/FPC (1-6)	
CN408	QGF0528F1-40X	CONNECTOR	FFC/FPC (1-40)	
⚠ F1601	NMFZ007-R20X-K	FUSE	0.2A 50V	
⚠ F1602	NMFZ007-R50X-K	FUSE	0.5A 50V	
OT1	LY33021-001A	S.COVER(P/R)		

JACK BOARD ASSEMBLY <06>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB20943B-01	JACK BOARD ASSY		
IC501	BA10358F-XE	IC		
IC502	RPM7138-V4	IR DETECT UNIT		
Q501	RPM-22PB	PHOTO TRANSISTOR		
D501	SML-010LT-X	LED		
D503	MA8068-X	Z DIODE		
D506	MA8068-X	Z DIODE		
D507	EMZ6.8N-X	Z DIODE		
C501	NBE21AM-335X	TA E CAPACITOR	3.3uF 10V M	
C502	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C503	NCB31EK-153X	C CAPACITOR	0.015uF 25V K	
C504	NCB31EK-153X	C CAPACITOR	0.015uF 25V K	
C506	NBE21AM-106X	TA E CAPACITOR	10uF 10V M	
C509	NBE20JM-226X	TA E CAPACITOR	22uF 6.3V M	
C512	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C513	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
R501	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
R502	NRSA63J-684X	MG RESISTOR	680kΩ 1/16W J	
R503	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R504	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R505	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R506	NRSA63J-824X	MG RESISTOR	820kΩ 1/16W J	
R507	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R508	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	
R509	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	
R510	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R511	NRSA63J-302X	MG RESISTOR	3kΩ 1/16W J	
R512	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R513	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R514	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R515	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R516	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R517	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R518	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R519	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R520	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R521	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R522	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R523	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
L501	NQR0251-004X	FERRITE BEADS		
L502	NQR0251-004X	FERRITE BEADS		
L503	NQR0251-004X	FERRITE BEADS		
CN501	QGF0503C1-22X	CONNECTOR	FFC/FPC (1-22)	
J501	QNS0078-001	3.5 JACK		
J502	QND0004-001	S JACK		
J503	PEMC1203	MINI JACK		
SW501	NSW0122-001X	DETECT SWITCH EJECT SW		

B/W-VF BOARD ASSEMBLY <07>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB20940A	B/W-VF BOARD ASSY		
Q7001	PUMX1-W	PAIR TRANSISTOR		
Q7001 or	BC847S-X	PAIR TRANSISTOR		
D7001	E1S35AW0C501-X	LED		
C7001	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7002	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7003	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7004	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
R7001	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R7002	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J	
R7003	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R7004	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
CN7001	QGF0532F1-18X	CONNECTOR	FFC/FPC (1-18)	
CN7002	QGF0507F3-20X	CONNECTOR	FFC/FPC (1-20)	

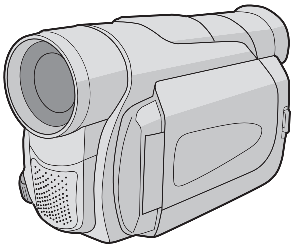
JVC

SCHEMATIC DIAGRAMS

DIGITAL VIDEO CAMERA

GR-D20EK,GR-D20EX,GR-D20EY,GR-D20EZ,GR-D21EK, GR-D40EK,GR-D40EX,GR-D40EY,GR-D40EZ

CD-ROM No.SML200305



Mini DV PAL

For disassembling and assembling of MECHANISM ASSEMBLY, refer to the SERVICE MANUAL No.86700 (MECHANISM ASSEMBLY).

SPECIFICATION

Camcorder

General

Power supply	DC 11.0 V ⎓ (Using AC Adapter) DC 7.2 V ⎓ (Using battery pack)
Power consumption	
LCD monitor off, viewfinder on	Approx. 3.4 W
LCD monitor on, viewfinder off	Approx. 4.7 W
Dimensions (W x H x D)	69 mm x 94 mm x 143 mm (with the LCD monitor closed and the viewfinder pushed back in)
Weight	Approx. 525 g
Operating temperature	0°C to 40°C
Operating humidity	35% to 80%
Storage temperature	-20°C to 50°C
Pickup	1/6" CCD
Lens	F 1.6, f = 2.7 mm to 43.2 mm, 16:1 power zoom lens
Filter diameter	Ø37 mm
LCD monitor	2.5" diagonally measured, LCD panel/TFT active matrix system
Viewfinder	Electronic viewfinder with 0.24" black/white LCD
Speaker	Monaural

Digital Video Camera

Format	DV format (SD mode)
Signal format	PAL standard
Recording/Playback format	Video: Digital component recording Audio: PCM digital recording, 32 kHz 4-channel (12-bit), 48 kHz 2-channel (16-bit)
Cassette	Mini DV cassette
Tape speed	SP : 18.8 mm/s LP : 12.5 mm/s
Maximum recording time (using 80 min. cassette)	SP : 80 min. LP : 120 min.

Connectors

S-Video	
Output	Y : 1 V (p-p), 75 Ω, analogue C : 0.29 V (p-p), 75 Ω, analogue
Input*	Y : 0.8 V (p-p) -1.2 V (p-p), 75 Ω, analogue C : 0.2 V (p-p) -0.4 V (p-p), 75 Ω, analogue
AV	
Video output	1 V (p-p), 75 Ω, analogue
Video input*	0.8 V (p-p) -1.2 V (p-p), 75 Ω, analogue
Audio output	300 mV (rms), 1 kΩ, analogue, stereo
Audio input*	300 mV (rms), 50 kΩ, analogue, stereo
DV	
Output	4-pin, IEEE 1394 compliant
Input*	4-pin, IEEE 1394 compliant
USB**	5-pin
EDIT	Ø3.5 mm, 2-pole

* GR-D50/D30 only
** GR-D50/D40 only

AC Adapter

Power requirement	AC 110 V to 240 V ~, 50 Hz/60 Hz
Output	DC 11 V ⎓, 1 A

Specifications shown are for SP mode unless otherwise indicated. E & O.E. Design and specifications subject to change without notice.

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No.86730SCH
2003/04

CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions
The Components identified by the symbol ⚠ are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

Unless otherwise specified.

1) All resistance values are in ohm. 1/6 W, 1/8 W (refer to parts list).
   Chip resistors are 1/16 W.
   K: KΩ (1000Ω), M: MΩ (1000KΩ)
2) All capacitance values are in µF, (P: PF).
3) All inductance values are in µH, (m: mH).
4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

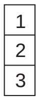
Note: The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only. When replacing the parts, refer to the Parts List.

2. Indications of control voltage

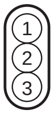
AUX : Active at high.

$\overline{\text{AUX}}$ or AUX(L) : Active at low.

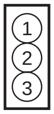
3. Interpreting Connector indications



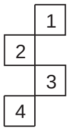
Removable connector



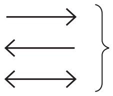
Wire soldered directly on board



Non-removable Board connector



Board to Board

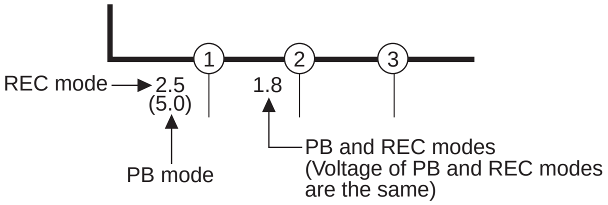


Connected pattern on board
The arrows indicate signal path

Note: For the destination of each signal and further line connections that are cut off from the diagram, refer to "BOARD INTERCONNECTIONS"

4. Voltage measurement

1) Regulator (DC/DC CONV) circuits
   REC : Colour bar signal.
   PB : Alignment tape (Colour bar).
   — : Unmeasurable or unnecessary to measure.
4) Indication on schematic diagram
   Voltage Indications for REC and PB mode on the schematic diagram are as shown below.

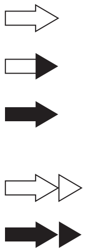


Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

5. Signal path Symbols

The arrows indicate the signal path as follows.

NOTE : The arrow is DVC unique object.



Playback signal path

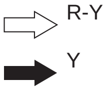
Playback and recording signal path

Recording signal path
(including E-E signal path)

Capstan servo path

Drum servo path

(Example)

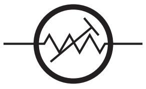


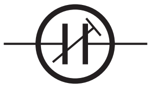
Playback R-Y signal path

Recording Y signal path

6. Indication of the parts for adjustments

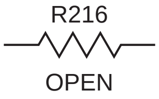
The parts for the adjustments are surrounded with the circle as shown below.





7. Indication of the parts not mounted on the circuit board

"OPEN" is indicated by the parts not mounted on the circuit board.



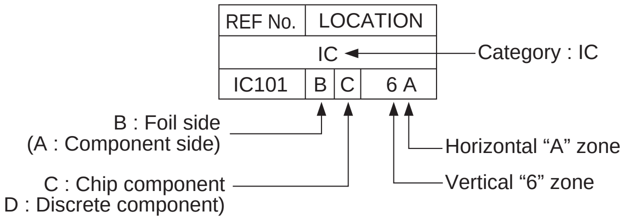
CIRCUIT BOARD NOTES

1. Foil and Component sides

1) Foil side (B side) :
   Parts on the foil side seen from foil face (pattern face) are indicated.
2) Component side (A side) :
   Parts on the component side seen from component face (parts face) indicated.

2. Parts location guides

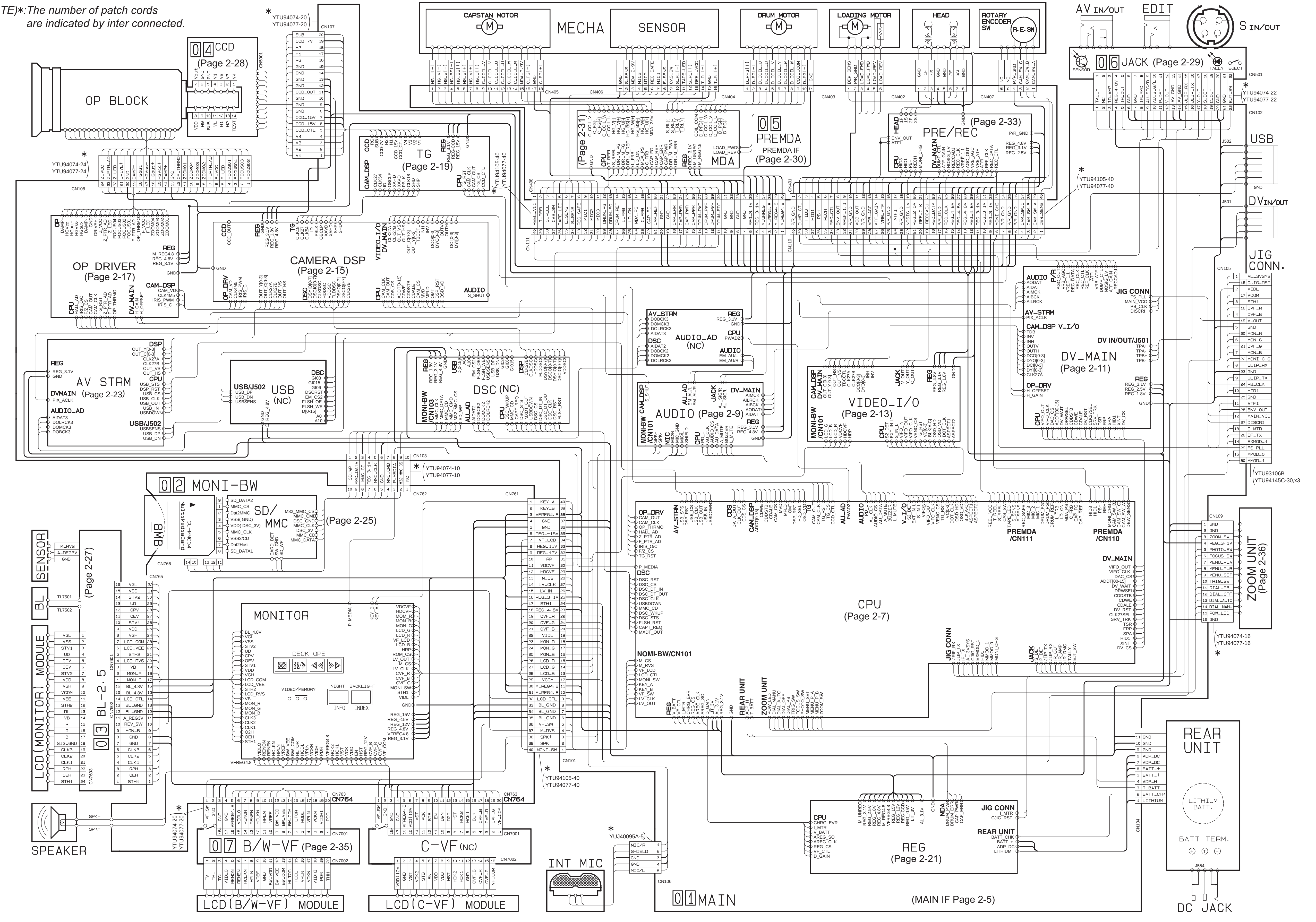
Parts location are indicated by guide scale on the circuit board.


REF No.
LOCATION
IC
Category : IC
IC101
B
C
6 A
B : Foil side
(A : Component side)
C : Chip component
D : Discrete component)
Horizontal “A” zone
Vertical “6” zone

Note: For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

■ BOARD INTERCONNECTIONS

NOTE):The number of patch cords are indicated by inter connected.*



OP BLOCK
04 CCD (Page 2-28)
TG (Page 2-19)
MECHA
CAPSTAN MOTOR
SENSOR
DRUM MOTOR
LOADING MOTOR
HEAD
ROTARY ENCODER SW
AV IN/OUT
EDIT
S IN/OUT
06 JACK (Page 2-29)
SENSOR
TALLY
EJECT
USB
DV IN/OUT
JIG CONN.
(Page 2-31)
MDA
05 PREMDA
PREMDA IF (Page 2-30)
PRE/REC (Page 2-33)
OP_DRIVER (Page 2-17)
CAMERA_DSP (Page 2-15)
AV STRM (Page 2-23)
USB (NC)
DSC (NC)
AUDIO_AD (NC)
AUDIO (Page 2-9)
VIDEO_I/O (Page 2-13)
DV_MAIN (Page 2-11)
02 MONI-BW
SD/MMC (Page 2-25)
SENSOR
BL
LCD(MONITOR) MODULE
03 BL-2.5 (Page 2-27)
MONITOR
DECK OPE
VIDEO/MEMORY
NIGHT
BACKLIGHT
INFO
INDEX
CPU (Page 2-7)
ZOOM UNIT (Page 2-36)
REAR UNIT
LITHIUM BATT.
BATT_TERM.
DC JACK
REG (Page 2-21)
SPEAKER
07 B/W-VF (Page 2-35)
C-VF (NC)
LCD(B/W-VF) MODULE
LCD(C-VF) MODULE
INT MIC
01 MAIN
(MAIN IF Page 2-5)
YTU94074-20
YTU94077-20
YTU94074-24
YTU94077-24
YTU94105-40
YTU94077-40
YTU94074-22
YTU94077-22
YTU94074-10
YTU94077-10
YTU93106B
YTU94145C-30,x3
YTU94074-16
YTU94077-16
YUJ40095A-5

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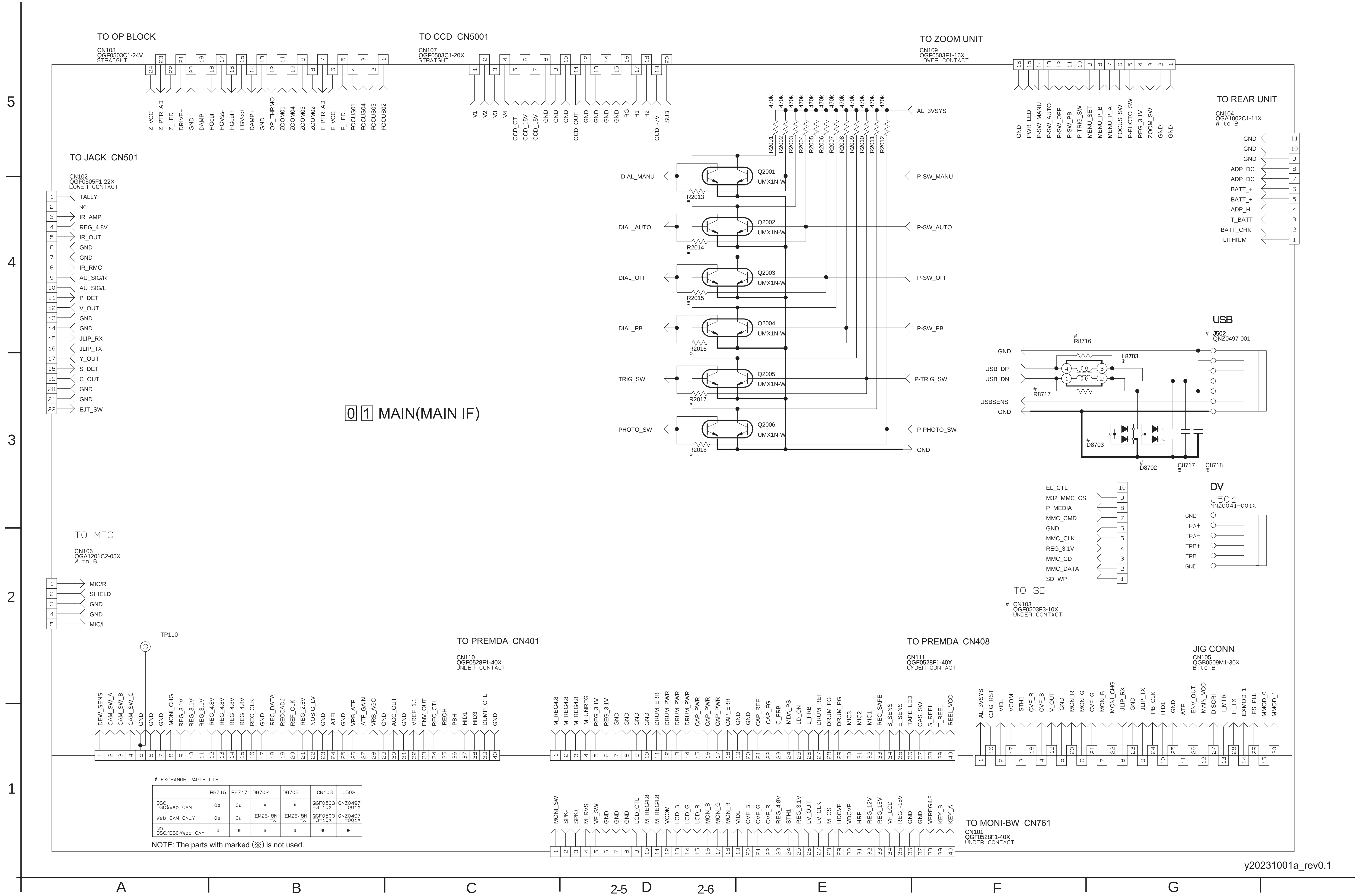
■ MAIN IF SCHEMATIC DIAGRAM



5
4
3
2
1
TO OP BLOCK
CN108
QGF0503C1-24V
STRAIGHT
Z_VCC
Z_PTR_AD
Z_LED
DRIVE+
GND
DAMP-
HGout-
HGVss-
HGout+
HGVcc+
DAMP+
GND
OP_THRMO
ZOOM01
ZOOM04
ZOOM03
ZOOM02
F_PTR_AD
F_VCC
F_LED
FOCUS01
FOCUS04
FOCUS03
FOCUS02
TO CCD CN5001
CN107
QGF0503C1-20X
STRAIGHT
V1
V2
V3
V4
CCD_CTL
CCD_15V
CCD_15V
GND
GND
GND
CCD_OUT
GND
GND
GND
GND
RG
H1
H2
CCD_-7V
SUB
TO ZOOM UNIT
CN109
QGF0503F1-16X
LOWER CONTACT
GND
PWR_LED
P-SW_MANU
P-SW_AUTO
P-SW_OFF
P-SW_PB
P-TRIG_SW
MENU_SET
MENU_P_B
MENU_P_A
FOCUS_SW
P-PHOTO_SW
REG_3.1V
ZOOM_SW
GND
GND
AL_3VSYS
470k
R2001
R2002
R2003
R2004
R2005
R2006
R2007
R2008
R2009
R2010
R2011
R2012
DIAL_MANU
Q2001
UMX1N-W
R2013
P-SW_MANU
DIAL_AUTO
Q2002
UMX1N-W
R2014
P-SW_AUTO
DIAL_OFF
Q2003
UMX1N-W
R2015
P-SW_OFF
DIAL_PB
Q2004
UMX1N-W
R2016
P-SW_PB
TRIG_SW
Q2005
UMX1N-W
R2017
P-TRIG_SW
PHOTO_SW
Q2006
UMX1N-W
R2018
P-PHOTO_SW
GND
TO REAR UNIT
CN104
QGA1002C1-11X
W to B
GND
GND
GND
ADP_DC
ADP_DC
BATT_+
BATT_+
ADP_H
T_BATT
BATT_CHK
LITHIUM
TO JACK CN501
CN102
QGF0505F1-22X
LOWER CONTACT
TALLY
NC
IR_AMP
REG_4.8V
IR_OUT
GND
GND
IR_RMC
AU_SIG/R
AU_SIG/L
P_DET
V_OUT
GND
GND
JLIP_RX
JLIP_TX
Y_OUT
S_DET
C_OUT
GND
GND
EJT_SW
01 MAIN(MAIN IF)
USB
# J502
QNZ0497-001
# R8716
L8703
GND
USB_DP
USB_DN
# R8717
USBSENS
GND
# D8703
# D8702
C8717
C8718
EL_CTL
M32_MMC_CS
P_MEDIA
MMC_CMD
GND
MMC_CLK
REG_3.1V
MMC_CD
MMC_DATA
SD_WP
TO SD
# CN103
QGF0503F3-10X
UNDER CONTACT
DV
J501
NNZ0041-001X
GND
TPA+
TPA-
TPB+
TPB-
GND
TO MIC
CN106
QGA1201C2-05X
W to B
MIC/R
SHIELD
GND
GND
MIC/L
TP110
TO PREMDA CN401
CN110
QGF0528F1-40X
UNDER CONTACT
DEW_SENS
CAM_SW_A
CAM_SW_B
CAM_SW_C
GND
GND
GND
MONI_CHG
REG_3.1V
REG_3.1V
REG_3.1V
REG_4.8V
REG_4.8V
REG_4.8V
REG_4.8V
REC_CLK
GND
REC_DATA
RECCADJ
REF_CLK
REG_2.5V
NOSIG_LV
GND
ATFI
GND
VRB_ATF
ATF_GAIN
VRB_AGC
GND
AGC_OUT
GND
VREF_1.1
ENV_OUT
REC_CTL
RECH
PBH
HID1
HID3
DUMP_CTL
GND
M_REG4.8
M_REG4.8
M_REG4.8
M_UNREG
REG_3.1V
REG_3.1V
GND
GND
GND
GND
DRUM_ERR
DRUM_PWR
DRUM_PWR
DRUM_PWR
CAP_PWR
CAP_PWR
CAP_PWR
CAP_ERR
GND
GND
CAP_REF
CAP_FG
C_FRB
MDA_PS
LD_ON
L_FRB
DRUM_REF
DRUM_FG
DRUM_PG
MIC3
MIC2
MIC1
REC_SAFE
S_SENS
E_SENS
TAPE_LED
CAS_SW
S_REEL
T_REEL
REEL_VCC
TO PREMDA CN408
CN111
QGF0528F1-40X
UNDER CONTACT
JIG CONN
CN105
QGB0509M1-30X
B to B
AL_3VSYS
CJIG_RST
VIDL
VCOM
STH1
CVF_R
CVF_B
V_OUT
GND
MON_R
MON_G
CVF_G
MON_B
MONI_CHG
JLIP_RX
GND
JLIP_TX
PB_CLK
HID1
GND
ATFI
ENV_OUT
MAIN_VCO
DISCRI
I_MTR
IF_TX
EXMOD_1
FS_PLL
MMOD_0
MMOD_1
MONI_SW
SPK-
SPK+
M_RVS
VF_SW
GND
GND
LCD_CTL
M_REG4.8
M_REG4.8
VCOM
LCD_B
LCD_G
LCD_R
MON_B
MON_G
MON_R
VIDL
CVF_B
CVF_G
CVF_R
REG_4.8V
STH1
REG_3.1V
LV_OUT
LV_CLK
M_CS
HDCVF
VDCVF
HRP
REG_12V
REG_15V
VF_LCD
REG_15V
GND
GND
VFREG4.8
KEY_B
KEY_A
TO MONI-BW CN761
CN101
QGF0528F1-40X
UNDER CONTACT
A
B
C
D
E
F
G

# EXCHANGE PARTS LIST

	R8716	R8717	D8702	D8703	CN103	J502
DSC DSC&Web CAM	0Ω	0Ω	※	※	QGF0503F3-10X	QNZ0497-001X
Web CAM ONLY	0Ω	0Ω	EMZ6.8N-X	EMZ6.8N-X	QGF0503F3-10X	QNZ0497-001X
NO DSC/DSC&Web CAM	※	※	※	※	※	※

NOTE: The parts with marked (※) is not used.

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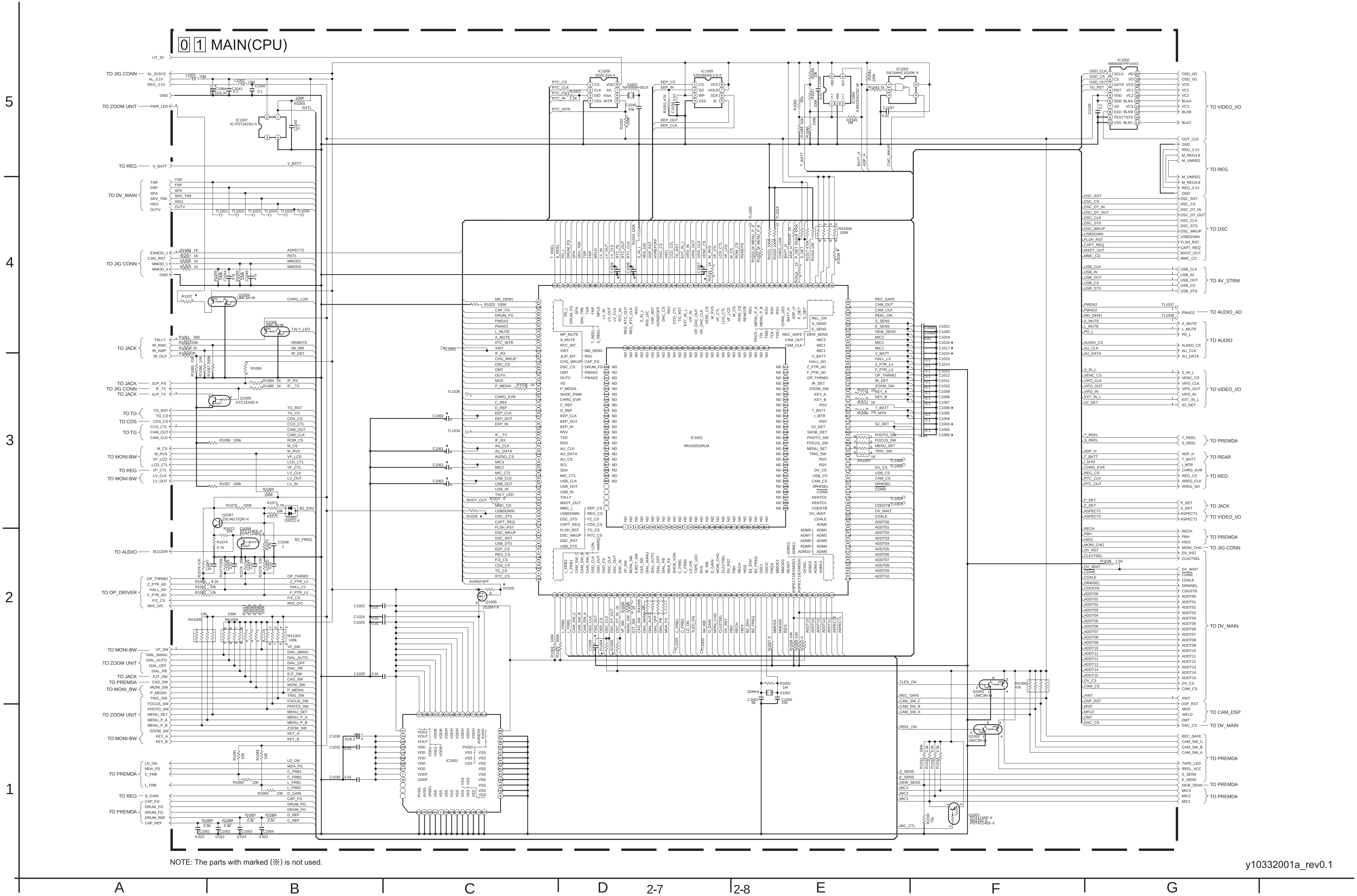
■ CPU SCHEMATIC DIAGRAM


0 1 MAIN(CPU)
IC1001
MN103S33NJA
IC1002
MB90097PFVXXX
IC1003
SN74AHC1G00K-X
IC1004
S-80920ACNC-W
IC1005
X25330S8I-2.5-X
IC1006
RS5C314-X
IC1007
IC-PST3423U-X
X1001
20MHz
X1002
NAX0564-001X
Q1001
DTA114EE-X
Q1002
UMC3N-W
Q1003
UMC3N-W
Q1004
UMC3N-W
Q1005
DTC143XE-X
Q1006
UMC3N-W
Q1007
2SC4617/QR/-X
Q1008
DTC124EE-X
Q1009
2SJ347-X
D1001
DA221-X
TO JIG CONN
TO ZOOM UNIT
TO REG
TO DV_MAIN
TO JACK
TO TG
TO CDS
TO MONI-BW
TO AUDIO
TO OP_DRIVER
TO PREMDA
TO VIDEO_I/O
TO DSC
TO AV_STRM
TO AUDIO_AD
TO REAR
TO CAM_DSP
A
B
C
D
E
F
G
1
2
3
4
5
2-7
2-8

NOTE: The parts with marked (※) is not used.

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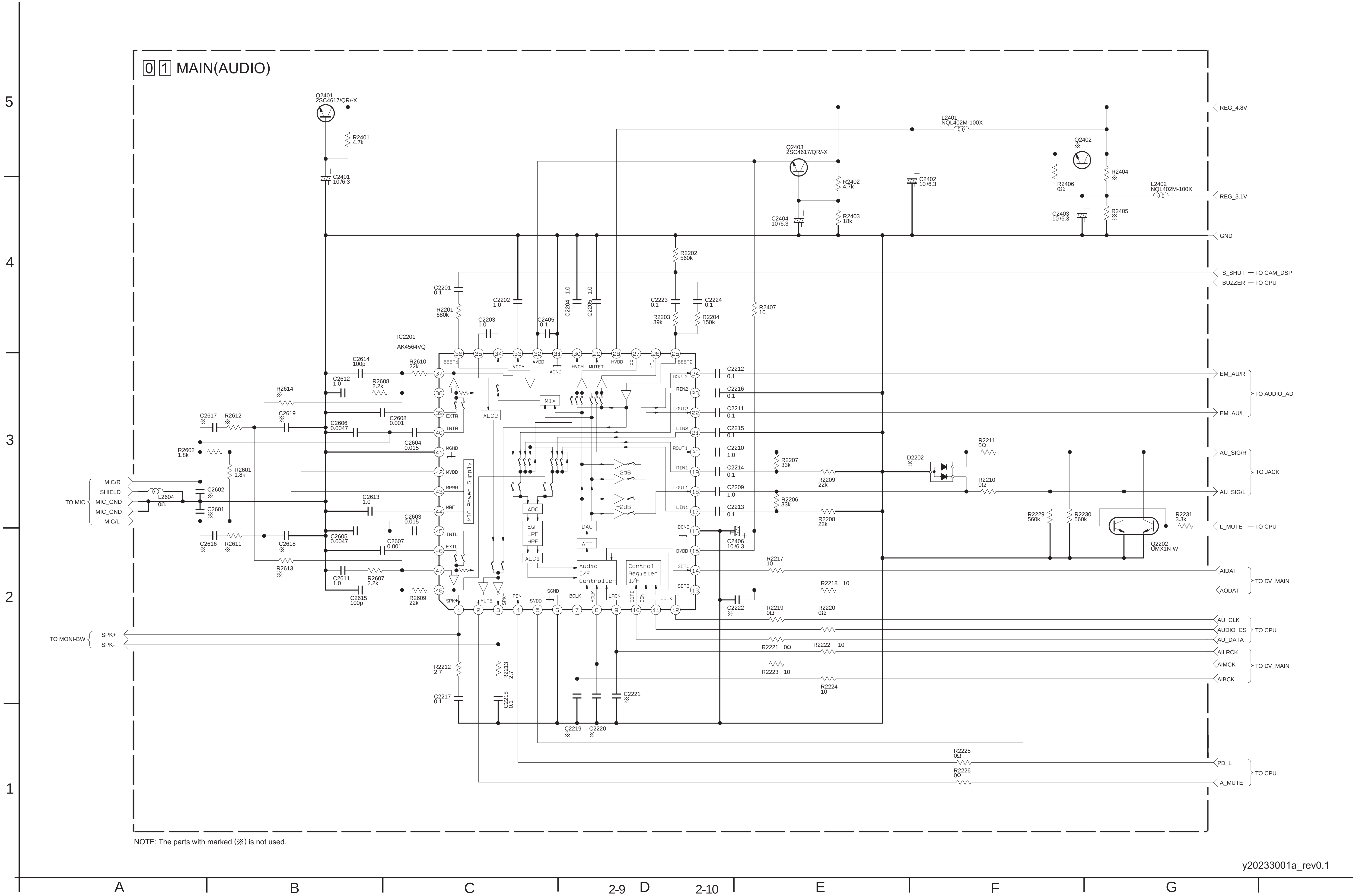
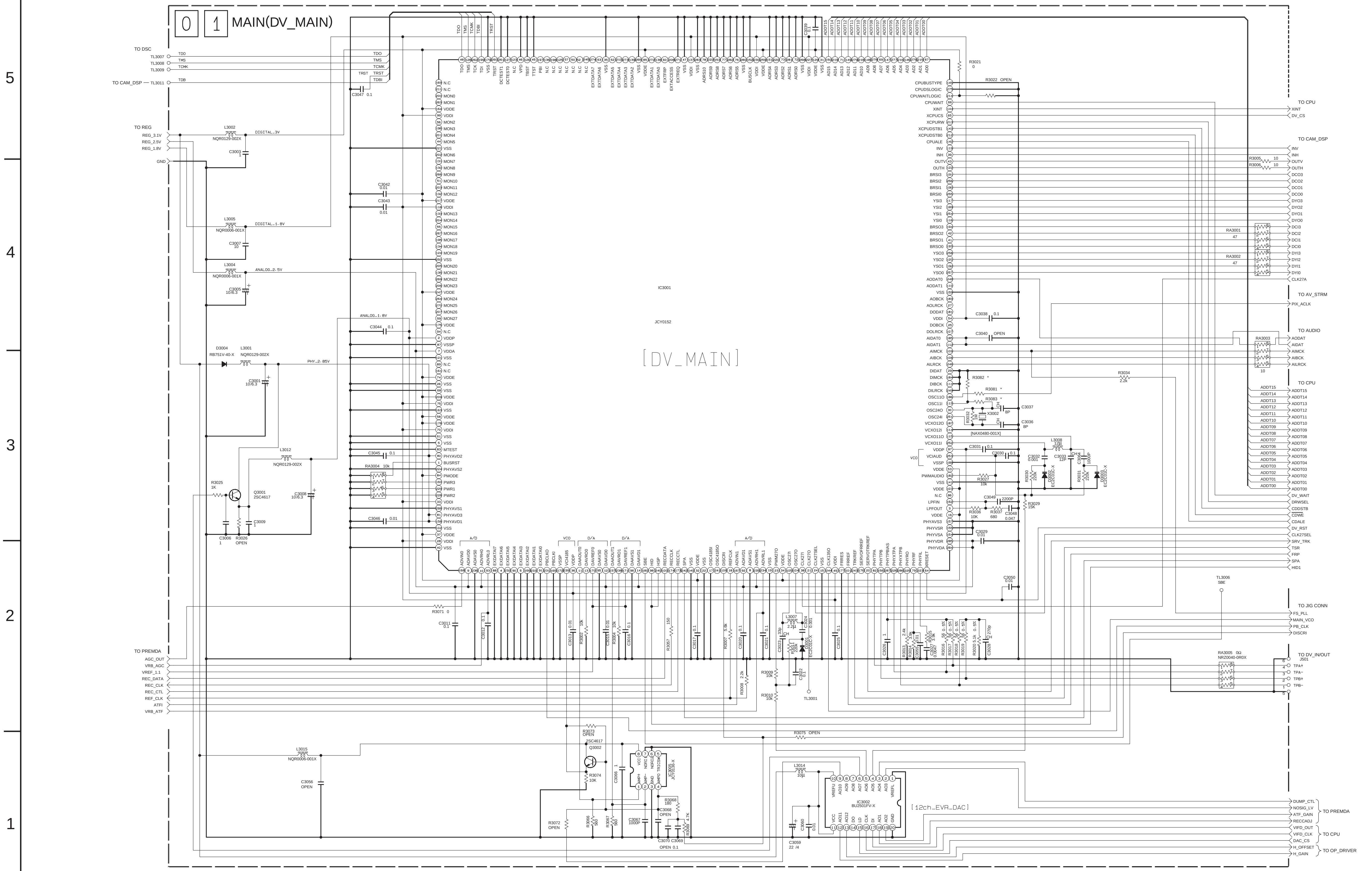
■ AUDIO SCHEMATIC DIAGRAM



0 1 MAIN(AUDIO)
5
4
3
2
1
A
B
C
D
E
F
G
Q2401
2SC4617/QR/-X
R2401
4.7k
C2401
10/6.3
Q2403
2SC4617/QR/-X
R2402
4.7k
R2403
18k
C2404
10/6.3
L2401
NQL402M-100X
C2402
10/6.3
Q2402
※
R2406
0Ω
R2404
※
R2405
※
C2403
10/6.3
L2402
NQL402M-100X
REG_4.8V
REG_3.1V
GND
S_SHUT — TO CAM_DSP
BUZZER — TO CPU
R2202
560k
C2201
0.1
R2201
680k
C2202
1.0
C2203
1.0
C2405
0.1
C2204 1.0
C2205 1.0
C2223
0.1
R2203
39k
C2224
0.1
R2204
150k
R2407
10
IC2201
AK4564VQ
BEEP1
VCOM
AVDD
AGND
HVCM
MUTET
HVDD
HPR
HPL
BEEP2
ROUT2
RIN2
LOUT2
LIN2
ROUT1
RIN1
LOUT1
LIN1
DGND
DVDD
SDTO
SDTI
MGND
MVDD
MPWR
MRF
INTR
EXTR
INTL
EXTL
MIC Power Supply
MIX
ALC2
ALC1
ADC
EQ
LPF
HPF
DAC
ATT
+2dB
+2dB
Audio
I/F
Controller
Control
Register
I/F
SPK+
MUTE
SPK-
PDN
SVDD
SGND
BCLK
MCLK
LRCK
CDTI
CSN
CCLK
C2614
100p
R2610
22k
C2612
1.0
R2608
2.2k
R2614
※
C2619
※
C2608
0.001
C2617
※
R2612
※
C2606
0.0047
C2604
0.015
R2602
1.8k
R2601
1.8k
C2602
※
L2604
0Ω
C2601
※
C2613
1.0
C2603
0.015
C2616
※
R2611
※
C2618
※
C2605
0.0047
C2607
0.001
R2613
※
C2611
1.0
R2607
2.2k
C2615
100p
R2609
22k
MIC/R
SHIELD
MIC_GND
MIC_GND
MIC/L
TO MIC
C2212
0.1
C2216
0.1
C2211
0.1
C2215
0.1
C2210
1.0
C2214
0.1
C2209
1.0
C2213
0.1
R2207
33k
R2209
22k
R2206
33k
R2208
22k
C2406
10/6.3
D2202
※
R2211
0Ω
R2210
0Ω
R2229
560k
R2230
560k
R2231
3.3k
Q2202
UMX1N-W
EM_AU/R
EM_AU/L
TO AUDIO_AD
AU_SIG/R
AU_SIG/L
TO JACK
L_MUTE — TO CPU
R2217
10
R2218 10
C2222
※
R2219
0Ω
R2220
0Ω
R2221 0Ω
R2222 10
R2223 10
R2224
10
AIDAT
AODAT
TO DV_MAIN
AU_CLK
AUDIO_CS
AU_DATA
TO CPU
AILRCK
AIMCK
AIBCK
TO DV_MAIN
SPK+
SPK-
TO MONI-BW
R2212
2.7
R2213
2.7
C2217
0.1
C2218
0.1
C2219
※
C2220
※
C2221
※
R2225
0Ω
R2226
0Ω
PD_L
A_MUTE
TO CPU

NOTE: The parts with marked (※) is not used.

■ DV_MAIN SCHEMATIC DIAGRAM



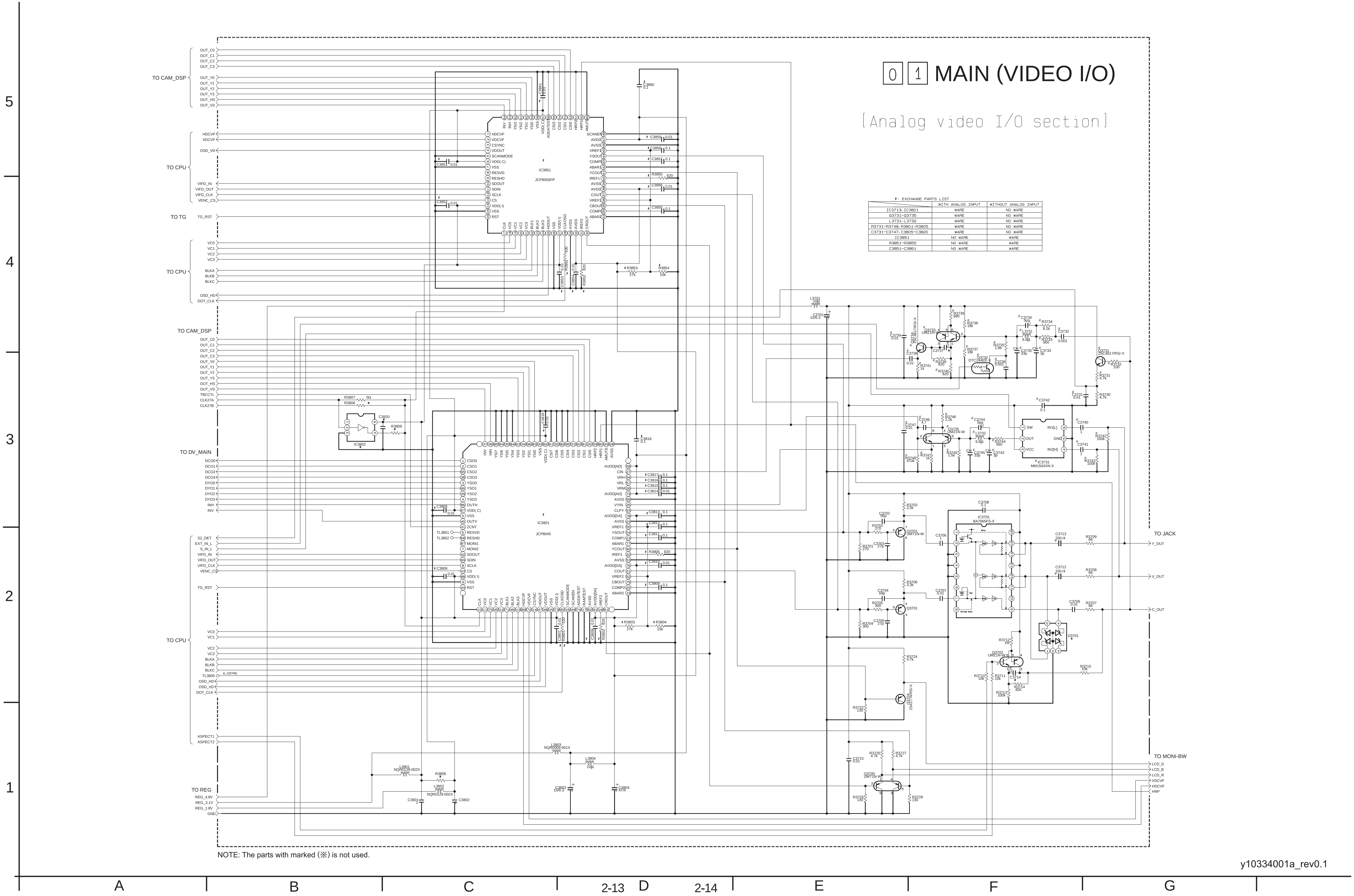
0 1 MAIN(DV_MAIN)
TO DSC
TO CAM_DSP
TO REG
REG_3.1V
REG_2.5V
REG_1.8V
GND
IC3001
JCY0152
[DV_MAIN]
TO CPU
TO CAM_DSP
TO AV_STRM
TO AUDIO
TO CPU
TO JIG CONN
TO DV_IN/OUT
TO PREMDA
IC3002
BU2501FV-X
[12ch_EVR_DAC]
TO PREMDA
TO CPU
TO OP_DRIVER
A
B
C
D
E
F
G
1
2
3
4
5

DIFFERENT PARTS LIST

	R3081	R3082	R3083
NON_PIX	OPEN	0Ω	OPEN
PIXELA	470Ω	OPEN	0Ω

NOTE: The parts with marked (*) is not used.

■ VIDEO I/O SCHEMATIC DIAGRAM



0 1 MAIN (VIDEO I/O)
[Analog video I/O section]
TO CAM_DSP
OUT_C0
OUT_C1
OUT_C2
OUT_C3
OUT_Y0
OUT_Y1
OUT_Y2
OUT_Y3
OUT_HS
OUT_VS
TO CPU
HDCVF
VDCVF
OSD_VD
VIFD_IN
VIFD_OUT
VIFD_CLK
VENC_CS
TO TG
TG_RST
VC0
VC1
VC2
VC3
BLKA
BLKB
BLKC
OSD_HD
DOT_CLK
TBCCTL
CLK27A
CLK27B
TO DV_MAIN
DCO0
DCO1
DCO2
DCO3
DYO0
DYO1
DYO2
DYO3
INH
INV
S2_DET
EXT_IN_L
S_IN_L
ASPECT1
ASPECT2
TO REG
REG_4.8V
REG_3.1V
REG_1.8V
GND
IC3851
JCP8055FP
IC3801
JCP8045
IC3802
IC3701
BA7665FS-X
IC3731
MM1504XN-X
TO JACK
Y_OUT
V_OUT
C_OUT
TO MONI-BW
LCD_G
LCD_B
LCD_R
VDCVF
HDCVF
HRP
A
B
C
D
E
F
G
1
2
3
4
5

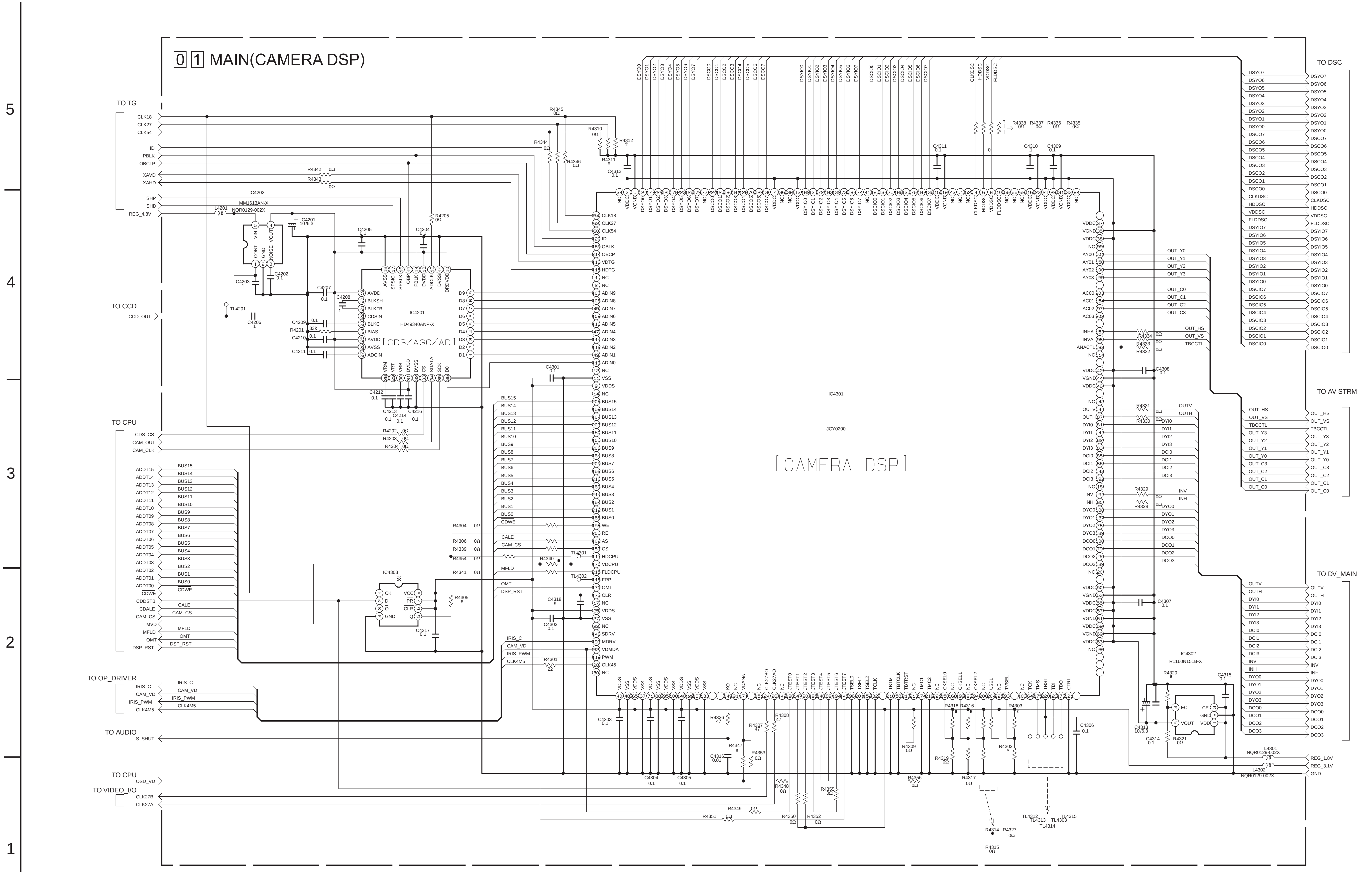
#: EXCHANGE PARTS LIST

	WITH ANALOG INPUT	WITHOUT ANALOG INPUT
IC3713, IC3801	WARE	NO WARE
Q3731-Q3735	WARE	NO WARE
L3731, L3732	WARE	NO WARE
R3731-R3748, R3801-R3805	WARE	NO WARE
C3731-C3747, C3805-C3820	WARE	NO WARE
IC3851	NO WARE	WARE
R3851-R3855	NO WARE	WARE
C3851-C3861	NO WARE	WARE

NOTE: The parts with marked (※) is not used.

y10334001a_rev0.1

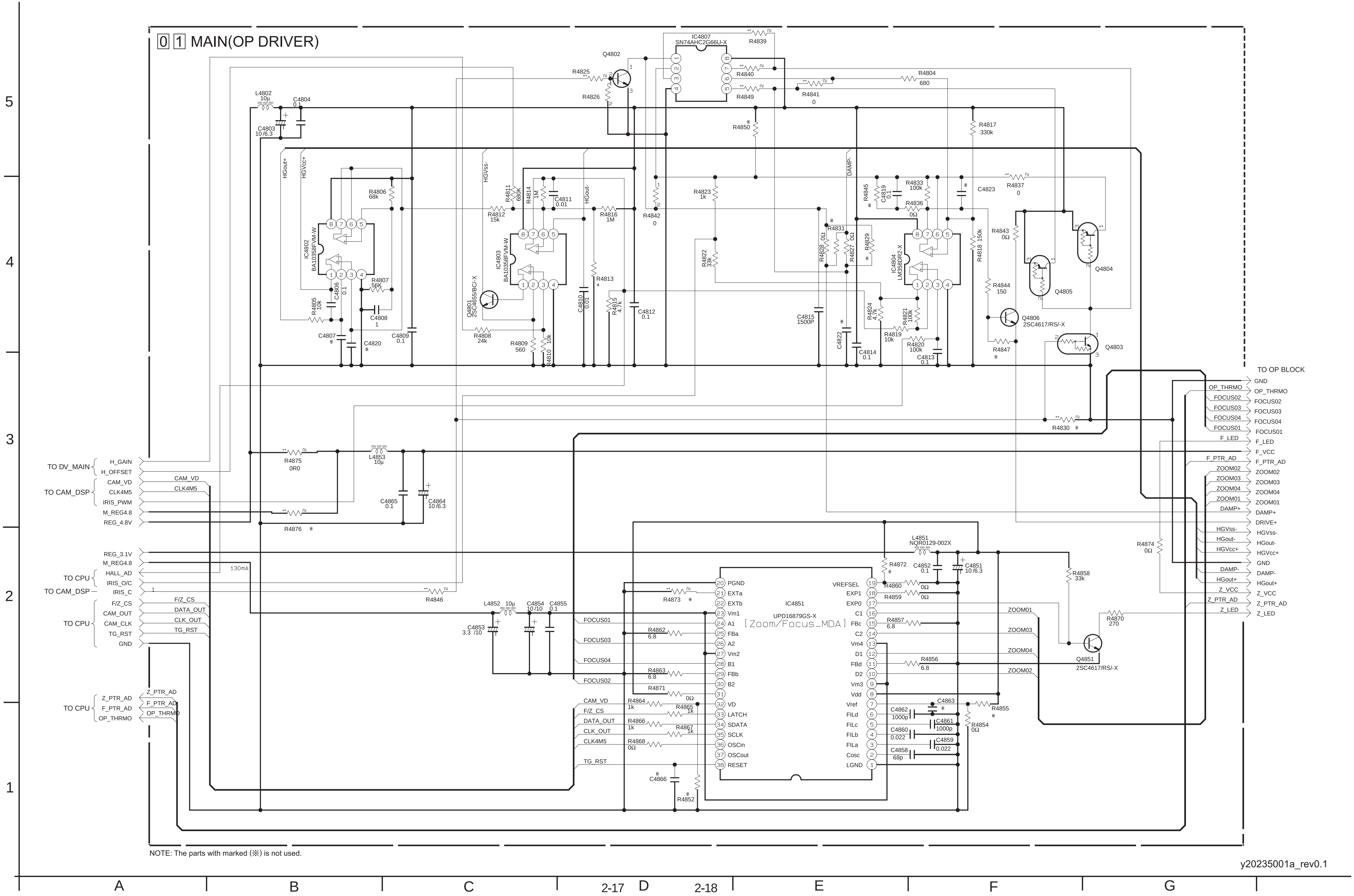
■ CAMERA DSP SCHEMATIC DIAGRAM


01 MAIN(CAMERA DSP)
TO TG
CLK18
CLK27
CLK54
ID
PBLK
OBCLP
XAVD
XAHD
SHP
SHD
REG_4.8V
TO CCD
CCD_OUT
TO CPU
CDS_CS
CAM_OUT
CAM_CLK
ADDT15
ADDT00
CDWE
CDDSTB
CDALE
CAM_CS
MVD
MFLD
OMT
DSP_RST
TO OP_DRIVER
IRIS_C
CAM_VD
IRIS_PWM
CLK4M5
TO AUDIO
S_SHUT
TO CPU
OSD_VD
TO VIDEO_I/O
CLK27B
CLK27A
IC4202
MM1613AN-X
L4201
NQR0129-002X
IC4201
HD49340ANP-X
[CDS/AGC/AD]
IC4303
IC4301
JCY0200
[CAMERA DSP]
IC4302
R1160N151B-X
TO DSC
DSYO7
DSYO0
DSCO7
DSCO0
CLKDSC
HDDSC
VDDSC
FLDDSC
DSYIO7
DSYIO0
DSCIO7
DSCIO0
TO AV STRM
OUT_HS
OUT_VS
TBCCTL
OUT_Y3
OUT_Y0
OUT_C3
OUT_C0
TO DV_MAIN
OUTV
OUTH
DYI0
DYI3
DCI0
DCI3
INV
INH
DYO0
DYO3
DCO0
DCO3
L4301
NQR0129-002X
REG_1.8V
REG_3.1V
L4302
NQR0129-002X
GND
5
4
3
2
1

	R4302	R4303
NTSC	0 Ω	※
PAL	※	0 Ω

NOTE: The parts with marked (※) is not used.

■ OP DRIVER SCHEMATIC DIAGRAM

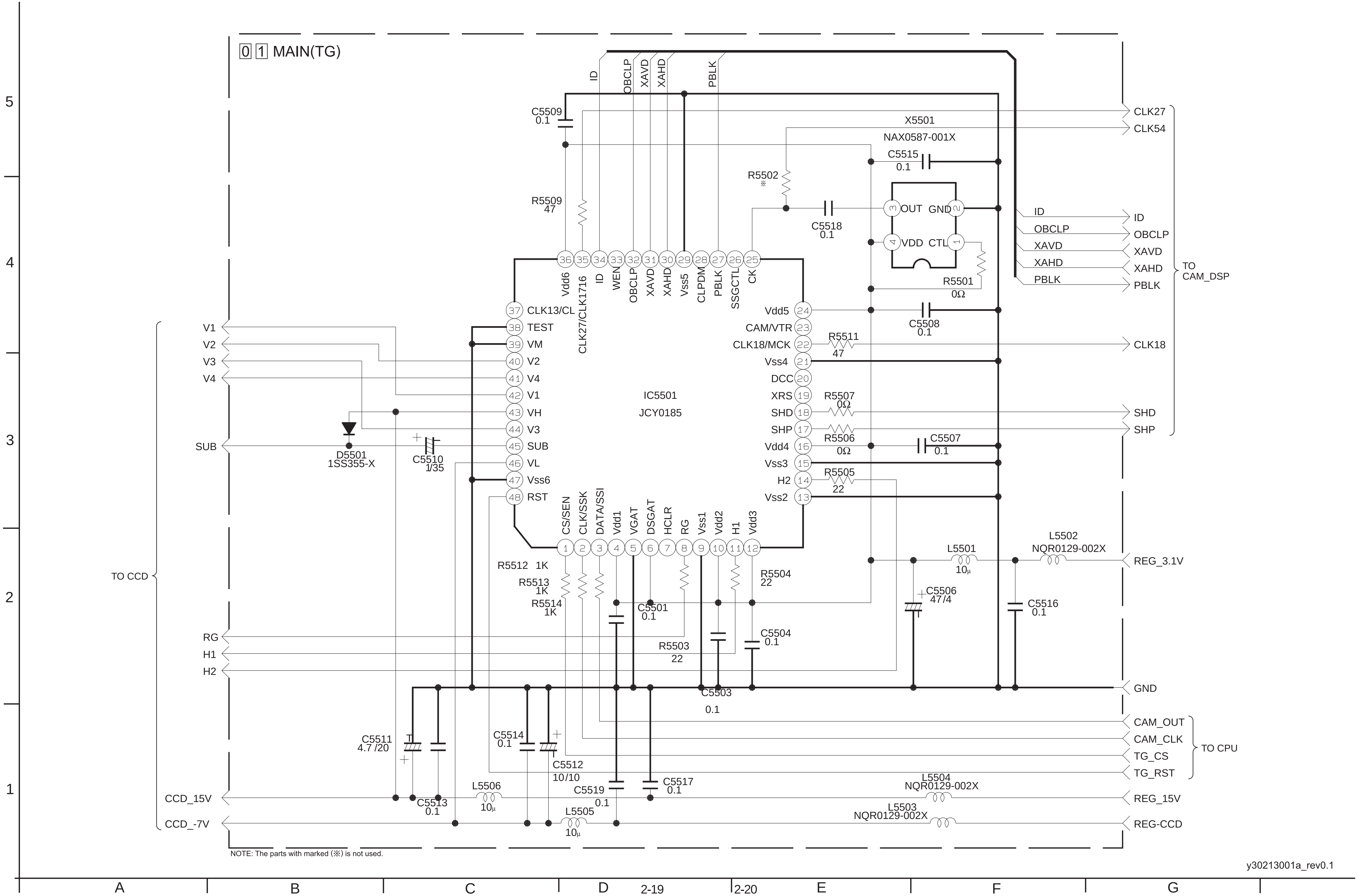


0 1 MAIN(OP DRIVER)
TO DV_MAIN
H_GAIN
H_OFFSET
TO CAM_DSP
CAM_VD
CLK4M5
IRIS_PWM
M_REG4.8
REG_4.8V
REG_3.1V
TO CPU
HALL_AD
IRIS_O/C
TO CAM_DSP
IRIS_C
F/Z_CS
CAM_OUT
CAM_CLK
TG_RST
GND
DATA_OUT
CLK_OUT
Z_PTR_AD
F_PTR_AD
OP_THRMO
130mA
L4802 10µ
C4804 0.1
C4803 10/6.3
IC4802 BA10358FVM-W
R4806 68k
R4807 56K
R4805 10k
C4806 0.1
C4808 1
C4807 ※
C4820 ※
C4809 0.1
HGout+
HGVcc+
HGVss-
HGout-
IC4803 BA10358FVM-W
Q4801 2SC4655/BC/-X
R4811 680K
R4812 15k
R4814 1M
C4811 0.01
R4816 1M
R4813 ※
R4808 24k
R4809 560
R4810 10k
C4810 0.01
R4815 4.7k
C4812 0.1
Q4802
R4825
R4826
IC4807 SN74AHC2G66U-X
R4839
R4840
R4849
R4841 0
R4804 680
R4850 ※
R4817 330k
R4823 1k
R4842 0
R4822 33k
DAMP-
R4845 ※
C4819 0.1
R4833 100k
R4836 0Ω
C4823 ※
R4837 0
R4831 ※
R4828 0Ω
R4827 0Ω
R4829 ※
IC4804 LM358DR2-X
R4818 150k
R4843 0Ω
Q4805
Q4804
R4844 150
Q4806 2SC4617/RS/-X
R4847 ※
Q4803
C4815 1500P
C4822 ※
R4824 4.7k
R4821 100k
R4819 10k
R4820 100k
C4814 0.1
C4813 0.1
R4830 ※
TO OP BLOCK
GND
OP_THRMO
FOCUS02
FOCUS03
FOCUS04
FOCUS01
F_LED
F_VCC
F_PTR_AD
ZOOM02
ZOOM03
ZOOM04
ZOOM01
DAMP+
DRIVE+
HGVss-
HGout-
HGVcc+
DAMP-
HGout+
Z_VCC
Z_PTR_AD
Z_LED
R4875 0R0
L4853 10µ
C4865 0.1
C4864 10/6.3
R4876 ※
R4874 0Ω
L4851 NQR0129-002X
R4872 ※
C4852 0.1
C4851 10/6.3
R4858 33k
R4846
L4852 10µ
C4854 10/10
C4855 0.1
C4853 3.3 /10
R4873 ※
IC4851 UPD16879GS-X
[Zoom/Focus_MDA]
20 PGND
21 EXTa
22 EXTb
23 Vm1
24 A1
25 FBa
26 A2
27 Vm2
28 B1
29 FBb
30 B2
31
32 VD
33 LATCH
34 SDATA
35 SCLK
36 OSCin
37 OSCout
38 RESET
19 VREFSEL
18 EXP1
17 EXP0
16 C1
15 FBc
14 C2
13 Vm4
12 D1
11 FBd
10 D2
9 Vm3
8 Vdd
7 Vref
6 FILd
5 FILc
4 FILb
3 FILa
2 Cosc
1 LGND
R4860 0Ω
R4859 0Ω
R4857 6.8
R4856 6.8
R4862 6.8
R4863 6.8
R4871 0Ω
R4864 1k
R4865 1k
R4866 1k
R4867 1k
R4868 0Ω
C4866 ※
R4852 ※
C4863 ※
C4862 1000p
C4861 1000p
C4860 0.022
C4859 0.022
C4858 68p
R4855 ※
R4854 0Ω
R4870 270
Q4851 2SC4617/RS/-X
1 2 3 4 5
A B C D E F G

NOTE: The parts with marked (※) is not used.

y20235001a_rev0.1

■ TG SCHEMATIC DIAGRAM

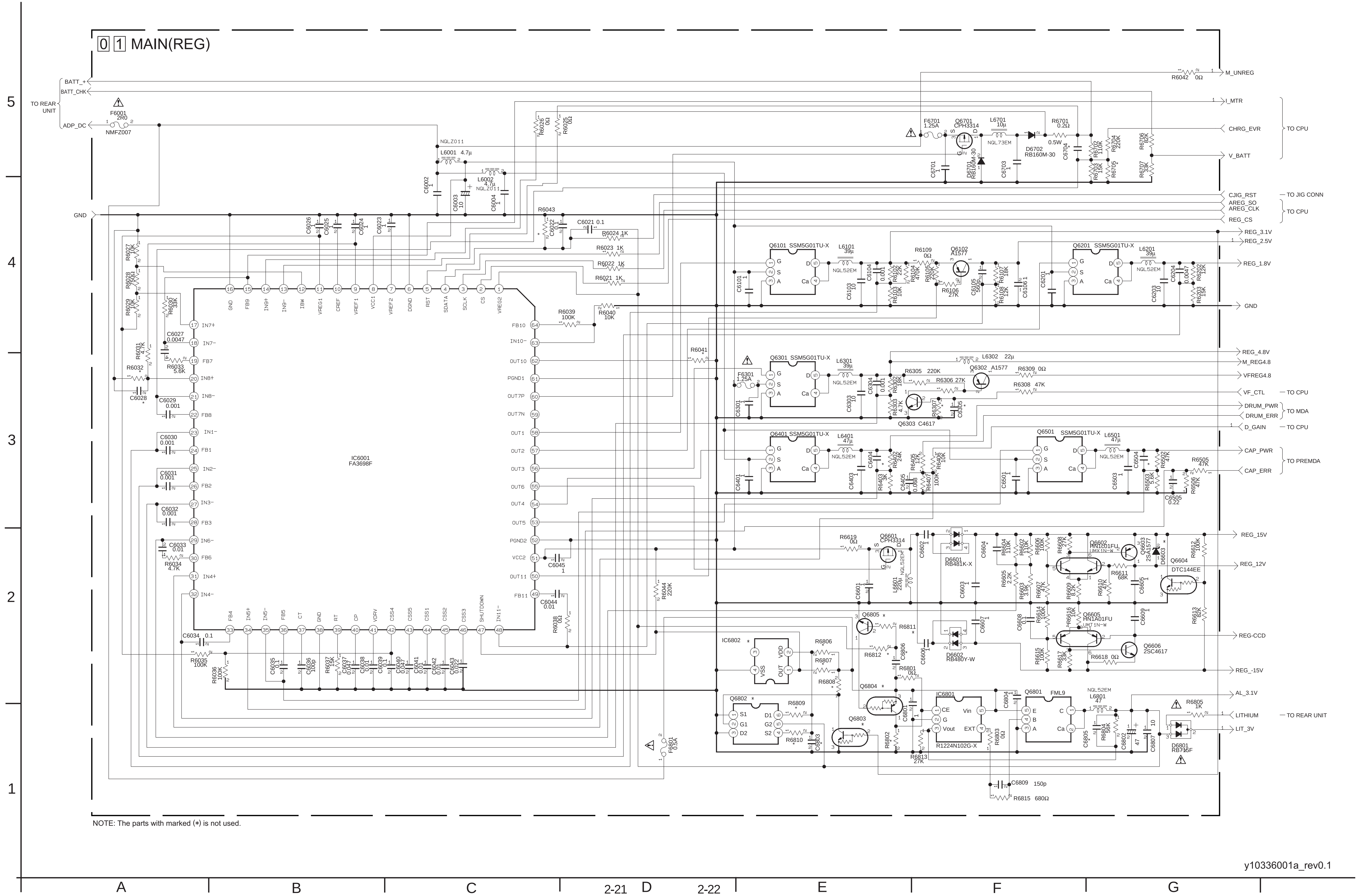


0 1 MAIN(TG)
IC5501
JCY0185
X5501
NAX0587-001X
3 OUT
2 GND
4 VDD
1 CTL
C5509 0.1
R5509 47
R5502 ※
C5515 0.1
C5518 0.1
R5501 0Ω
C5508 0.1
R5511 47
R5507 0Ω
R5506 0Ω
C5507 0.1
R5505 22
R5512 1K
R5513 1K
R5514 1K
C5501 0.1
R5503 22
R5504 22
C5504 0.1
C5503 0.1
L5501 10μ
L5502 NQR0129-002X
C5506 47/4
C5516 0.1
D5501 1SS355-X
C5510 1/35
C5511 4.7/20
C5513 0.1
C5514 0.1
C5512 10/10
C5519 0.1
C5517 0.1
L5506 10μ
L5505 10μ
L5504 NQR0129-002X
L5503 NQR0129-002X
36 Vdd6
35 CLK27/CLK1716
34 ID
33 WEN
32 OBCLP
31 XAVD
30 XAHD
29 Vss5
28 CLPDM
27 PBLK
26 SSGCTL
25 CK
24 Vdd5
23 CAM/VTR
22 CLK18/MCK
21 Vss4
20 DCC
19 XRS
18 SHD
17 SHP
16 Vdd4
15 Vss3
14 H2
13 Vss2
37 CLK13/CL
38 TEST
39 VM
40 V2
41 V4
42 V1
43 VH
44 V3
45 SUB
46 VL
47 Vss6
48 RST
1 CS/SEN
2 CLK/SSK
3 DATA/SSI
4 Vdd1
5 VGAT
6 DSGAT
7 HCLR
8 RG
9 Vss1
10 Vdd2
11 H1
12 Vdd3
ID
OBCLP
XAVD
XAHD
PBLK
V1
V2
V3
V4
SUB
RG
H1
H2
CCD_15V
CCD_-7V
TO CCD
CLK27
CLK54
ID
OBCLP
XAVD
XAHD
PBLK
TO CAM_DSP
CLK18
SHD
SHP
REG_3.1V
GND
CAM_OUT
CAM_CLK
TG_CS
TG_RST
TO CPU
REG_15V
REG-CCD
5
4
3
2
1
A
B
C
D
E
F
G

NOTE: The parts with marked (※) is not used.

y30213001a_rev0.1

■ REG SCHEMATIC DIAGRAM

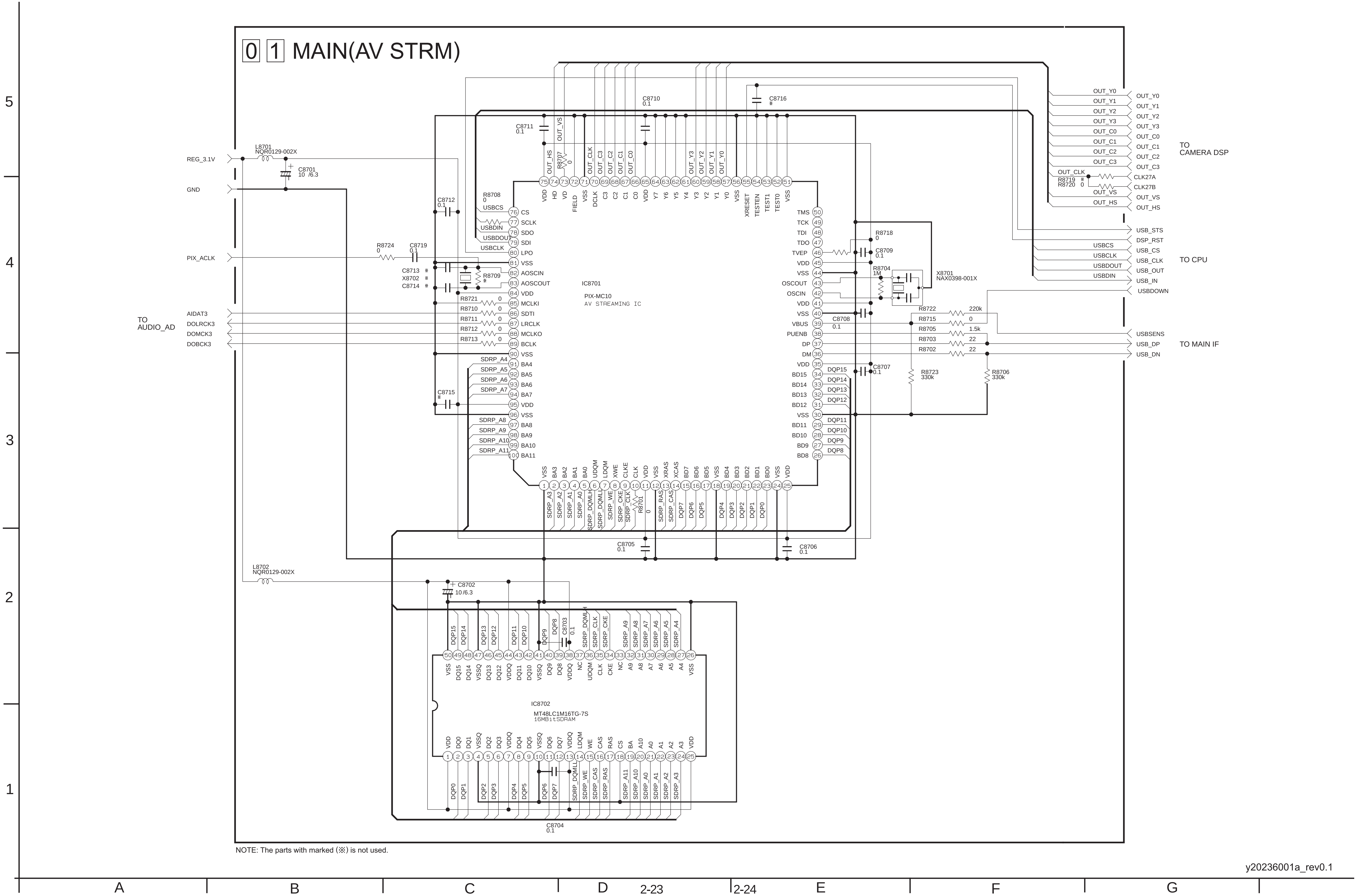


01 MAIN(REG)
TO REAR UNIT
BATT_+
BATT_CHK
ADP_DC
GND
F6001 2R0 NMFZ007
M_UNREG
I_MTR
CHRG_EVR
V_BATT
TO CPU
CJIG_RST
TO JIG CONN
AREG_SO
AREG_CLK
REG_CS
REG_3.1V
REG_2.5V
REG_1.8V
REG_4.8V
M_REG4.8
VFREG4.8
VF_CTL
DRUM_PWR
DRUM_ERR
TO MDA
D_GAIN
CAP_PWR
CAP_ERR
TO PREMDA
REG_15V
REG_12V
REG-CCD
REG_-15V
AL_3.1V
LITHIUM
LIT_3V
IC6001 FA3698F
L6001 4.7µ
L6002 4.7µ
NQLZ011
R6043
R6039 100K
R6040 10K
R6041
R6044 220K
Q6101 SSM5G01TU-X
L6101 39µ
Q6102 A1577
Q6201 SSM5G01TU-X
L6201 39µ
Q6301 SSM5G01TU-X
L6301 39µ
L6302 22µ
Q6302 A1577
Q6303 C4617
F6301 1.25A
Q6401 SSM5G01TU-X
L6401 47µ
Q6501 SSM5G01TU-X
L6501 47µ
F6701 1.25A
Q6701 CPH3314
L6701 10µ
D6701 RB160M-30
D6702 RB160M-30
R6701 0.2Ω
Q6601 CPH3314
D6601 RB481K-X
L6601 220µ
Q6602 HN1C01FU
Q6603 2SA1577
D6603
Q6604 DTC144EE
Q6605 HN1A01FU
Q6606 2SC4617
D6602 RB480Y-W
IC6802
Q6802
Q6803
Q6804
Q6805
IC6801 R1224N102G-X
Q6801 FML9
L6801 47
D6801 RB715F
F6801 0.5A
R6805 1K
C6809 150p
R6815 680Ω
A B C D E F G
1 2 3 4 5

NOTE: The parts with marked (∗) is not used.

y10336001a_rev0.1

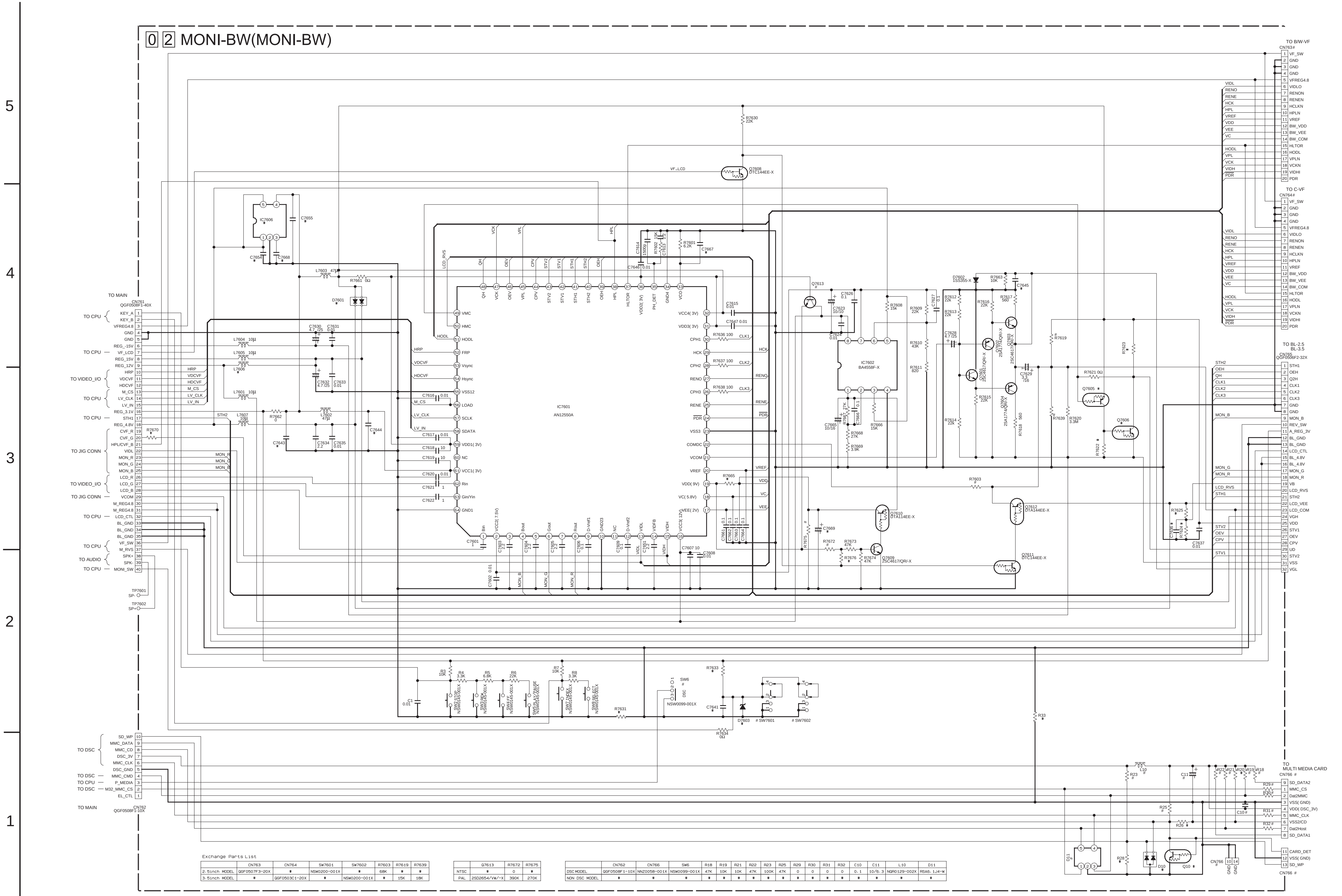
■ AV STRM SCHEMATIC DIAGRAM



0 1 MAIN(AV STRM)
5
4
3
2
1
A
B
C
D
E
F
G
REG_3.1V
GND
PIX_ACLK
TO AUDIO_AD
AIDAT3
DOLRCK3
DOMCK3
DOBCK3
L8701 NQR0129-002X
C8701 10 /6.3
L8702 NQR0129-002X
C8702 10/6.3
R8724 0
C8719 0.1
C8712 0.1
C8713 ※
X8702 ※
C8714 ※
R8709 ※
C8715 ※
R8708 0
R8721 0
R8710 0
R8711 0
R8712 0
R8713 0
C8711 0.1
C8710 0.1
C8716 ※
R8707 0
R8701 0
C8705 0.1
C8706 0.1
C8703 0.1
C8704 0.1
IC8701
PIX-MC10
AV STREAMING IC
USBCS
USBDIN
USBDOUT
USBCLK
CS
SCLK
SDO
SDI
LPO
VSS
AOSCIN
AOSCOUT
VDD
MCLKI
SDTI
LRCLK
MCLKO
BCLK
BA4
BA5
BA6
BA7
BA8
BA9
BA10
BA11
SDRP_A4
SDRP_A5
SDRP_A6
SDRP_A7
SDRP_A8
SDRP_A9
SDRP_A10
SDRP_A11
OUT_HS
OUT_VS
OUT_CLK
OUT_C3
OUT_C2
OUT_C1
OUT_C0
OUT_Y3
OUT_Y2
OUT_Y1
OUT_Y0
HD
VD
FIELD
DCLK
C3
C2
C1
C0
Y7
Y6
Y5
Y4
Y3
Y2
Y1
Y0
XRESET
TESTEN
TEST1
TEST0
TMS
TCK
TDI
TDO
TVEP
OSCOUT
OSCIN
VBUS
PUENB
DP
DM
BD15
BD14
BD13
BD12
BD11
BD10
BD9
BD8
DQP15
DQP14
DQP13
DQP12
DQP11
DQP10
DQP9
DQP8
BA3
BA2
BA1
BA0
UDQM
LDQM
XWE
CLKE
CLK
XRAS
XCAS
BD7
BD6
BD5
BD4
BD3
BD2
BD1
BD0
SDRP_A3
SDRP_A2
SDRP_A1
SDRP_A0
SDRP_DQMLH
SDRP_DQMLL
SDRP_WE
SDRP_CKE
SDRP_CLK
SDRP_RAS
SDRP_CAS
DQP7
DQP6
DQP5
DQP4
DQP3
DQP2
DQP1
DQP0
R8718 0
C8709 0.1
R8704 1M
X8701 NAX0398-001X
C8708 0.1
C8707 0.1
R8722 220k
R8715 0
R8705 1.5k
R8703 22
R8702 22
R8723 330k
R8706 330k
R8719 ※
R8720 0
CLK27A
CLK27B
TO CAMERA DSP
OUT_Y0
OUT_Y1
OUT_Y2
OUT_Y3
OUT_C0
OUT_C1
OUT_C2
OUT_C3
OUT_VS
OUT_HS
TO CPU
USB_STS
DSP_RST
USB_CS
USB_CLK
USB_OUT
USB_IN
USBDOWN
TO MAIN IF
USBSENS
USB_DP
USB_DN
IC8702
MT48LC1M16TG-7S
16MBitSDRAM
DQ15
DQ14
DQ13
DQ12
DQ11
DQ10
DQ9
DQ8
DQ7
DQ6
DQ5
DQ4
DQ3
DQ2
DQ1
DQ0
VSSQ
VDDQ
NC
UDQM
LDQM
CKE
WE
CAS
RAS
BA
A11
A10
A9
A8
A7
A6
A5
A4
A3
A2
A1
A0

NOTE: The parts with marked (※) is not used.

■ MONI-BW SCHEMATIC DIAGRAM



0 2 MONI-BW(MONI-BW)
TO MAIN CN761 QGF0508F1-40X
TO CPU
TO VIDEO_I/O
TO JIG CONN
TO AUDIO
TO B/W-VF CN763※
TO C-VF CN764※
TO BL-2.5 BL-3.5 CN765 QGF0506F2-32X
TO DSC
TO MAIN CN762 QGF0508F1-10X
TO MULTI MEDIA CARD CN766 ※
IC7601 AN12550A
IC7602 BA4558F-X
IC7606
Q7608 DTC144EE-X
Q7610 DTA114EE-X
Q7609 2SC4617/QRI-X
Q7612 DTA114EE-X
Q7611 DTC144EE-X
D7602 1SS355-X
SW6 DSC NSW0099-001X
SW7601
SW7602
TP7601 SP-
TP7602 SP+
5
4
3
2
1
A
B
C
D
E
F
G

Exchange Parts List

	CN763	CN764	SW7601	SW7602	R7603	R7619	R7639
2.5inch MODEL	QGF0507F3-20X	※	NSW0200-001X	※	68K	※	※
3.5inch MODEL	※	QGF0503C1-20X	※	NSW0200-001X	※	15K	18K

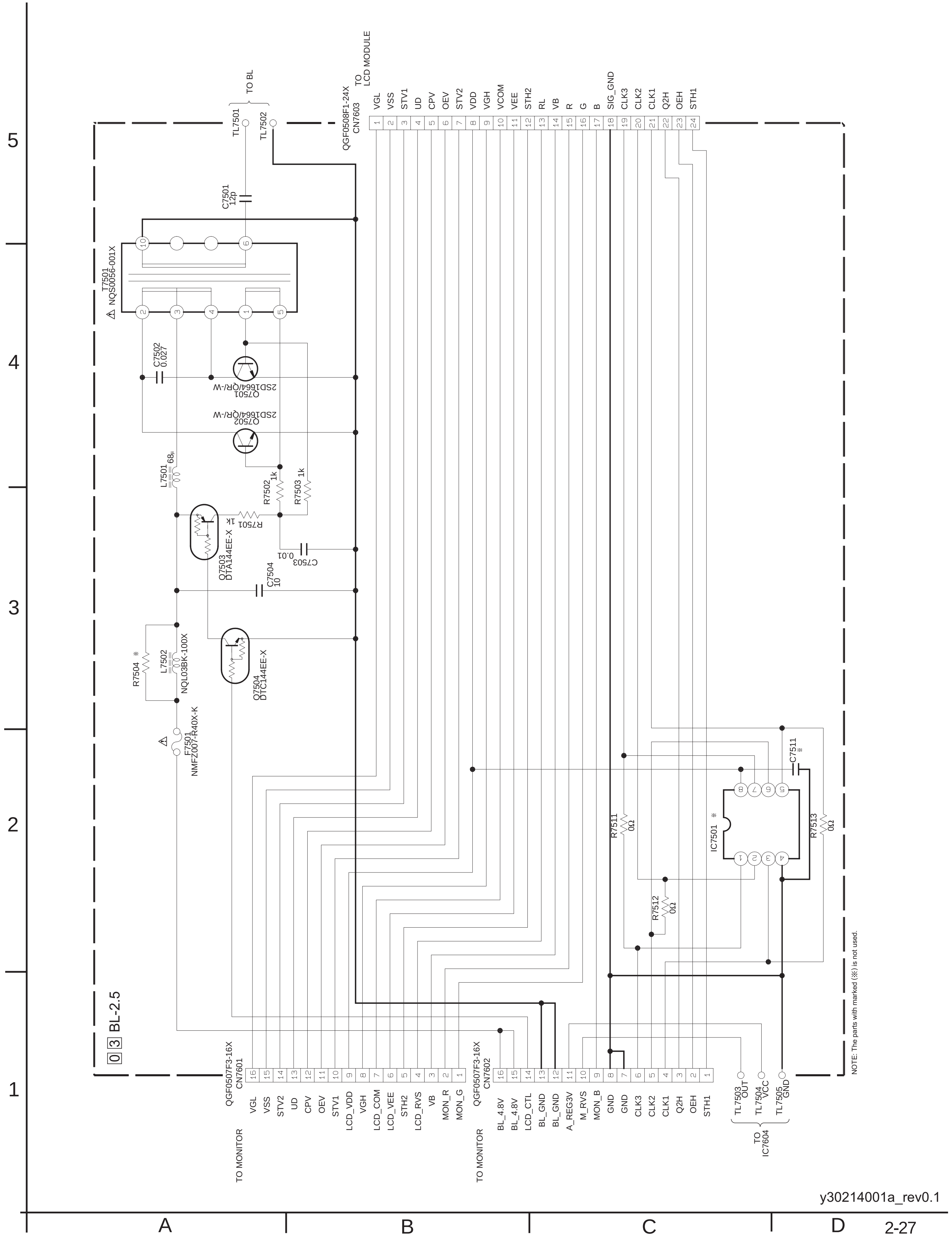
	Q7613	R7672	R7675
NTSC	※	0	※
PAL	2SD2654/VW/-X	390K	270K

	CN762	CN766	SW6	R18	R19	R21	R22	R23	R25	R29	R30	R31	R32	C10	C11	L10	D11
DSC MODEL	QGF0508F1-10X	NNZ0058-001X	NSW0099-001X	47K	10K	10K	47K	100K	47K	0	0	0	0	0.1	10/6.3	NQR0129-002X	RSA6.1J4-W
NON DSC MODEL	※	※	※	※	※	※	※	※	※	※	※	※	※	※	※	※	※

NOTE: The parts with marked (※) is not used.

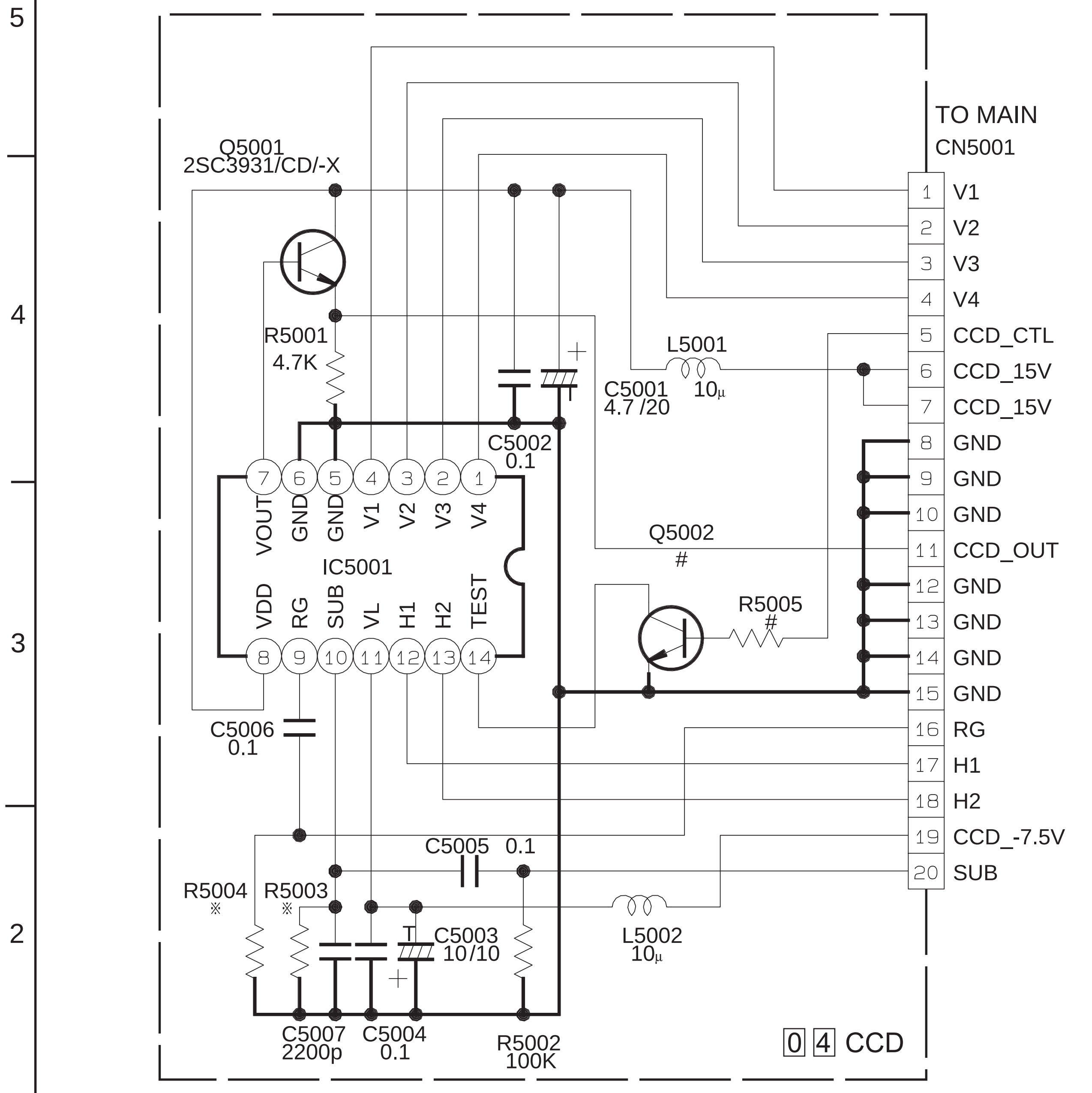
y10337001a_rev0.1

■ BL-2.5 SCHEMATIC DIAGRAM


TO BL
TL7501
TL7502
TO LCD MODULE
QGF0508F1-24X
CN7603
VGL
VSS
STV1
UD
CPV
OEV
STV2
VDD
VGH
VCOM
VEE
STH2
RL
VB
R
G
B
SIG_GND
CLK3
CLK2
CLK1
Q2H
OEH
STH1
C7501 12p
T7501 NQS0056-001X
C7502 0.027
Q7501 2SD1664/QR/-W
Q7502 2SD1664/QR/-W
L7501 68µ
R7502 1k
R7503 1k
R7501 1k
Q7503 DTA144EE-X
C7503 0.01
C7504 10
R7504 ※
L7502 NQL03BK-100X
Q7504 DTC144EE-X
F7501 NMFZ007-R40X-K
C7511 ※
R7511 0Ω
IC7501 ※
R7513 0Ω
R7512 0Ω
03 BL-2.5
QGF0507F3-16X
CN7601
VGL
VSS
STV2
UD
CPV
OEV
STV1
LCD_VDD
VGH
LCD_COM
LCD_VEE
STH2
LCD_RVS
VB
MON_R
MON_G
TO MONITOR
QGF0507F3-16X
CN7602
BL_4.8V
BL_4.8V
LCD_CTL
BL_GND
BL_GND
A_REG3V
M_RVS
MON_B
GND
GND
CLK3
CLK2
CLK1
Q2H
OEH
STH1
TO MONITOR
TL7503 OUT
TL7504 VCC
TL7505 GND
TO IC7604
NOTE: The parts with marked (※) is not used.
5
4
3
2
1
A
B
C
D

■ CCD SCHEMATIC DIAGRAM

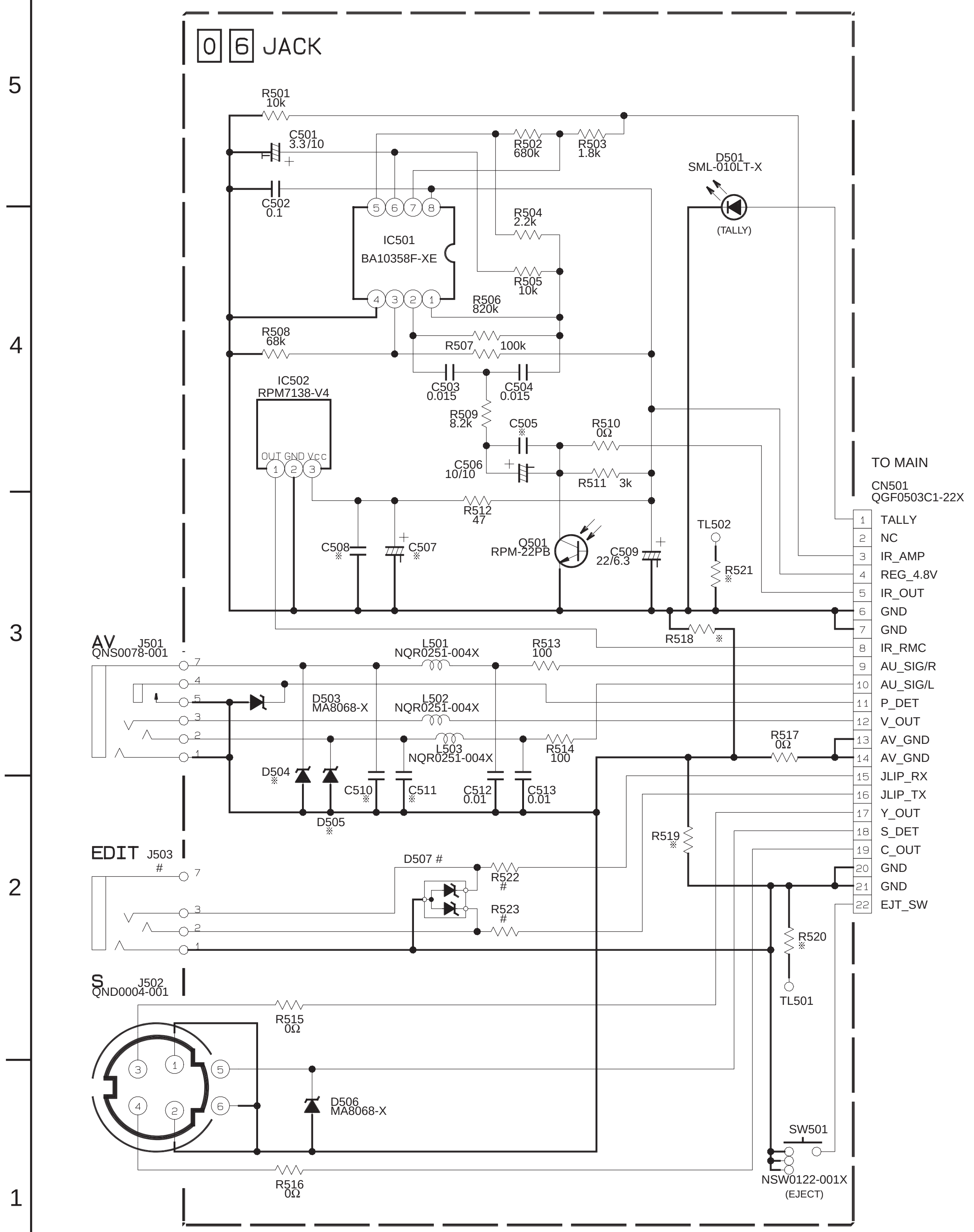
NOTES : ● *IC5001 is incorporated in the CCD base assembly.*
When IC 5001 needs replacement, replace the CCD base assembly in whole because it cannot be replaced alone.


Q5001
2SC3931/CD/-X
R5001
4.7K
C5001
4.7 /20
L5001
10µ
C5002
0.1
IC5001
VOUT
GND
GND
V1
V2
V3
V4
VDD
RG
SUB
VL
H1
H2
TEST
Q5002
#
R5005
#
C5006
0.1
C5005 0.1
R5004 ※
R5003 ※
C5003
10/10
L5002
10µ
C5007
2200p
C5004
0.1
R5002
100K
04 CCD
TO MAIN
CN5001
1 V1
2 V2
3 V3
4 V4
5 CCD_CTL
6 CCD_15V
7 CCD_15V
8 GND
9 GND
10 GND
11 CCD_OUT
12 GND
13 GND
14 GND
15 GND
16 RG
17 H1
18 H2
19 CCD_-7.5V
20 SUB
5
4
3
2

	Q5002	R5005
DSC MODEL	2SC4081/QR/-X	4.7K
NON DSC MODEL	※	※

NOTE: The parts with marked (※) is not used.

JACK SCHEMATIC DIAGRAM



06 JACK
R501 10k
C501 3.3/10
C502 0.1
R502 680k
R503 1.8k
D501 SML-010LT-X
(TALLY)
IC501 BA10358F-XE
R504 2.2k
R505 10k
R506 820k
R508 68k
R507 100k
C503 0.015
C504 0.015
IC502 RPM7138-V4
OUT GND Vcc
R509 8.2k
C505 ※
R510 0Ω
C506 10/10
R511 3k
R512 47
C508 ※
C507 ※
Q501 RPM-22PB
C509 22/6.3
TL502
R521 ※
TO MAIN
CN501 QGF0503C1-22X
1 TALLY
2 NC
3 IR_AMP
4 REG_4.8V
5 IR_OUT
6 GND
7 GND
8 IR_RMC
9 AU_SIG/R
10 AU_SIG/L
11 P_DET
12 V_OUT
13 AV_GND
14 AV_GND
15 JLIP_RX
16 JLIP_TX
17 Y_OUT
18 S_DET
19 C_OUT
20 GND
21 GND
22 EJT_SW
AV J501 QNS0078-001
L501 NQR0251-004X
R513 100
R518 ※
D503 MA8068-X
L502 NQR0251-004X
L503 NQR0251-004X
R514 100
R517 0Ω
D504 ※
C510 ※
C511 ※
C512 0.01
C513 0.01
D505 ※
R519 ※
EDIT J503 #
D507 #
R522 #
R523 #
R520 ※
TL501
S J502 QND0004-001
R515 0Ω
D506 MA8068-X
R516 0Ω
SW501
NSW0122-001X (EJECT)
5
4
3
2
1

EXCHANGE PARTS LIST

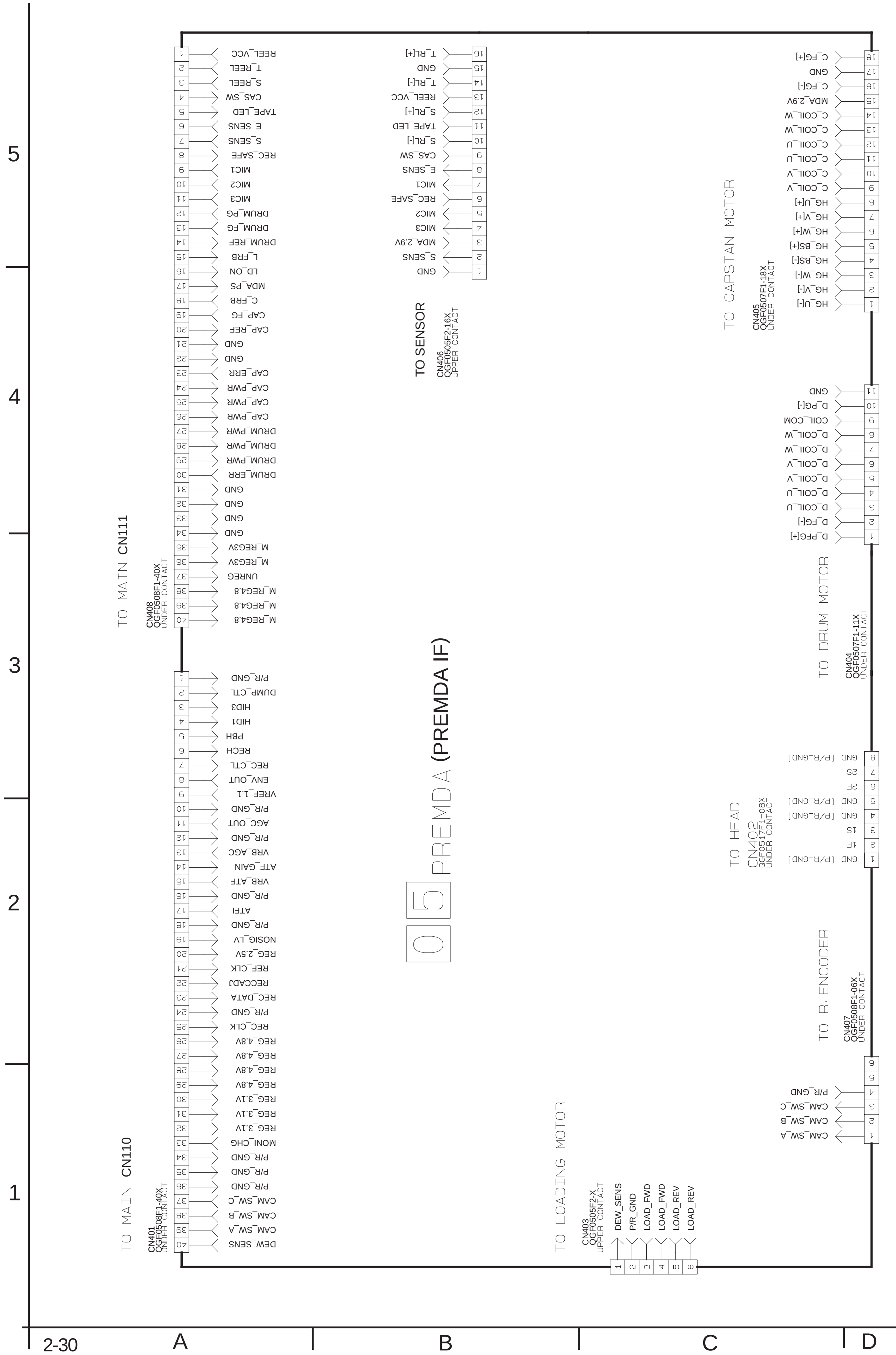
	J503	R522	R523	D507
ON EDIT	PEMC1203 or QNS0147-001	220	330	EMZ6.8N-X
NO EDIT	*	*	*	*

NOTE: The parts with marked (※) is not used.

y40103001a_rev0.1

A
B
C
D

PREMDA IF SCHEMATIC DIAGRAM

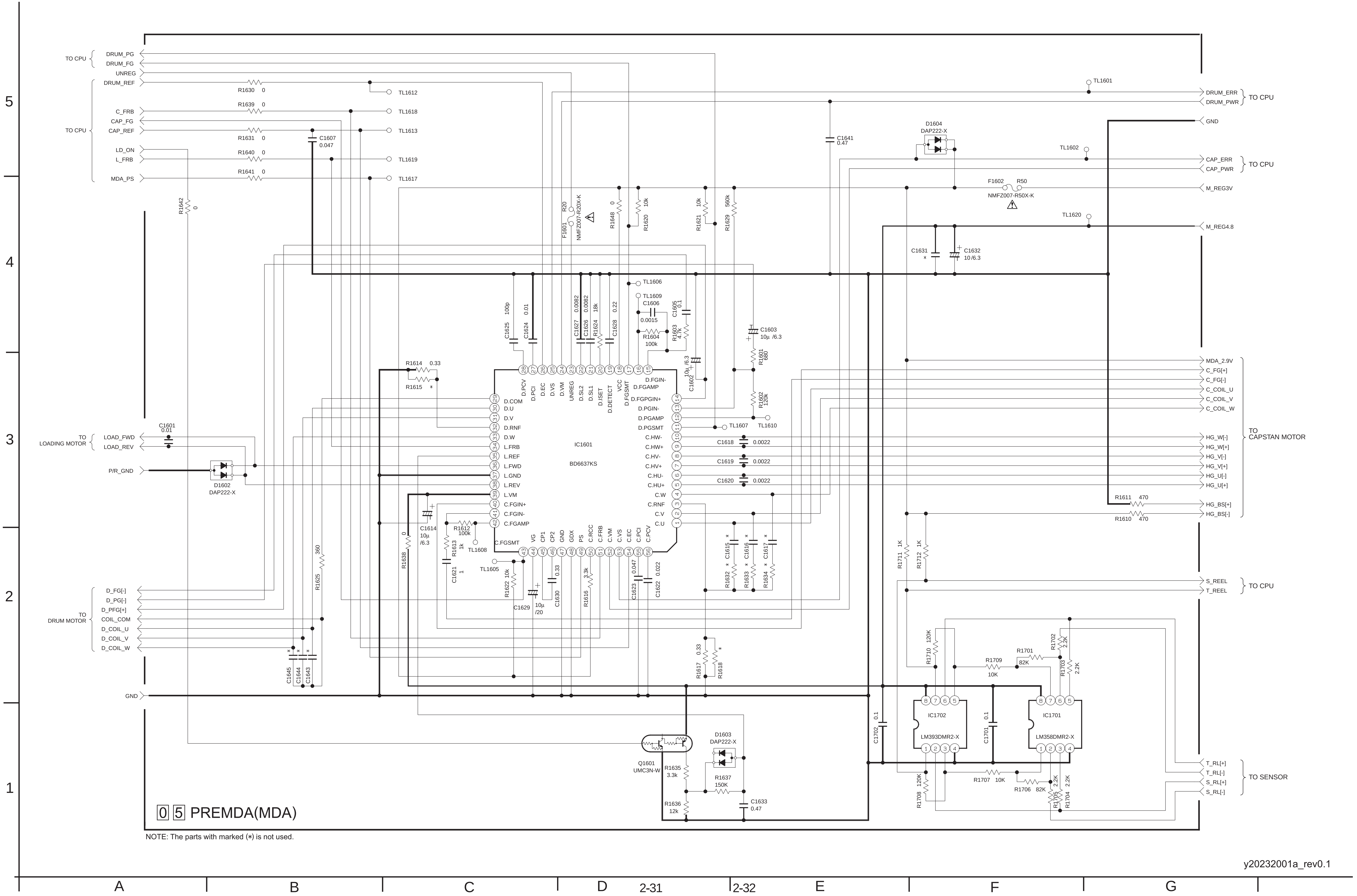


05 PREMDA (PREMDA IF)
TO MAIN CN111
CN408 QGF0508F1-40X UNDER CONTACT
1 REEL_VCC
2 T_REEL
3 S_REEL
4 CAS_SW
5 TAPE_LED
6 E_SENS
7 S_SENS
8 REC_SAFE
9 MIC1
10 MIC2
11 MIC3
12 DRUM_PG
13 DRUM_FG
14 DRUM_REF
15 L_FRB
16 LD_ON
17 MDA_PS
18 C_FRB
19 CAP_FG
20 CAP_REF
21 GND
22 GND
23 CAP_ERR
24 CAP_PWR
25 CAP_PWR
26 CAP_PWR
27 DRUM_PWR
28 DRUM_PWR
29 DRUM_PWR
30 DRUM_ERR
31 GND
32 GND
33 GND
34 GND
35 M_REG3V
36 M_REG3V
37 UNREG
38 M_REG4.8
39 M_REG4.8
40 M_REG4.8
TO SENSOR
CN406 QGF0505F2-16X UPPER CONTACT
16 T_RL[+]
15 GND
14 T_RL[-]
13 REEL_VCC
12 S_RL[+]
11 TAPE_LED
10 S_RL[-]
9 CAS_SW
8 E_SENS
7 MIC1
6 REC_SAFE
5 MIC2
4 MIC3
3 MDA_2.9V
2 S_SENS
1 GND
TO CAPSTAN MOTOR
CN405 QGF0507F1-18X UNDER CONTACT
18 C_FG[+]
17 GND
16 C_FG[-]
15 MDA_2.9V
14 C_COIL_W
13 C_COIL_W
12 C_COIL_U
11 C_COIL_U
10 C_COIL_V
9 C_COIL_V
8 HG_U[+]
7 HG_V[+]
6 HG_W[+]
5 HG_BS[+]
4 HG_BS[-]
3 HG_W[-]
2 HG_V[-]
1 HG_U[-]
TO DRUM MOTOR
CN404 QGF0507F1-11X UNDER CONTACT
11 GND
10 D_PG[-]
9 COIL_COM
8 D_COIL_W
7 D_COIL_W
6 D_COIL_V
5 D_COIL_V
4 D_COIL_U
3 D_COIL_U
2 D_FG[-]
1 D_PFG[+]
TO MAIN CN110
CN401 QGF0508F1-40X UNDER CONTACT
1 P/R_GND
2 DUMP_CTL
3 HID3
4 HID1
5 PBH
6 RECH
7 REC_CTL
8 ENV_OUT
9 VREF_1.1
10 P/R_GND
11 AGC_OUT
12 P/R_GND
13 VRB_AGC
14 ATF_GAIN
15 VRB_ATF
16 P/R_GND
17 ATFI
18 P/R_GND
19 NOSIG_LV
20 REG_2.5V
21 REF_CLK
22 RECCAD
23 REC_DATA
24 P/R_GND
25 REC_CLK
26 REG_4.8V
27 REG_4.8V
28 REG_4.8V
29 REG_4.8V
30 REG_3.1V
31 REG_3.1V
32 REG_3.1V
33 MONI_CHG
34 P/R_GND
35 P/R_GND
36 P/R_GND
37 CAM_SW_C
38 CAM_SW_B
39 CAM_SW_A
40 DEW_SENS
TO HEAD
CN402 QGF0517F1-08X UNDER CONTACT
8 GND [P/R_GND]
7 2S
6 2F
5 GND [P/R_GND]
4 GND [P/R_GND]
3 1S
2 1F
1 GND [P/R_GND]
TO R. ENCODER
CN407 QGF0508F1-06X UNDER CONTACT
6
5
4 P/R_GND
3 CAM_SW_C
2 CAM_SW_B
1 CAM_SW_A
TO LOADING MOTOR
CN403 QGF0505F2-6X UPPER CONTACT
1 DEW_SENS
2 P/R_GND
3 LOAD_FWD
4 LOAD_FWD
5 LOAD_REV
6 LOAD_REV
5
4
3
2
1

y30236001a_rev0.1

A
B
C
D

■ MDA SCHEMATIC DIAGRAM

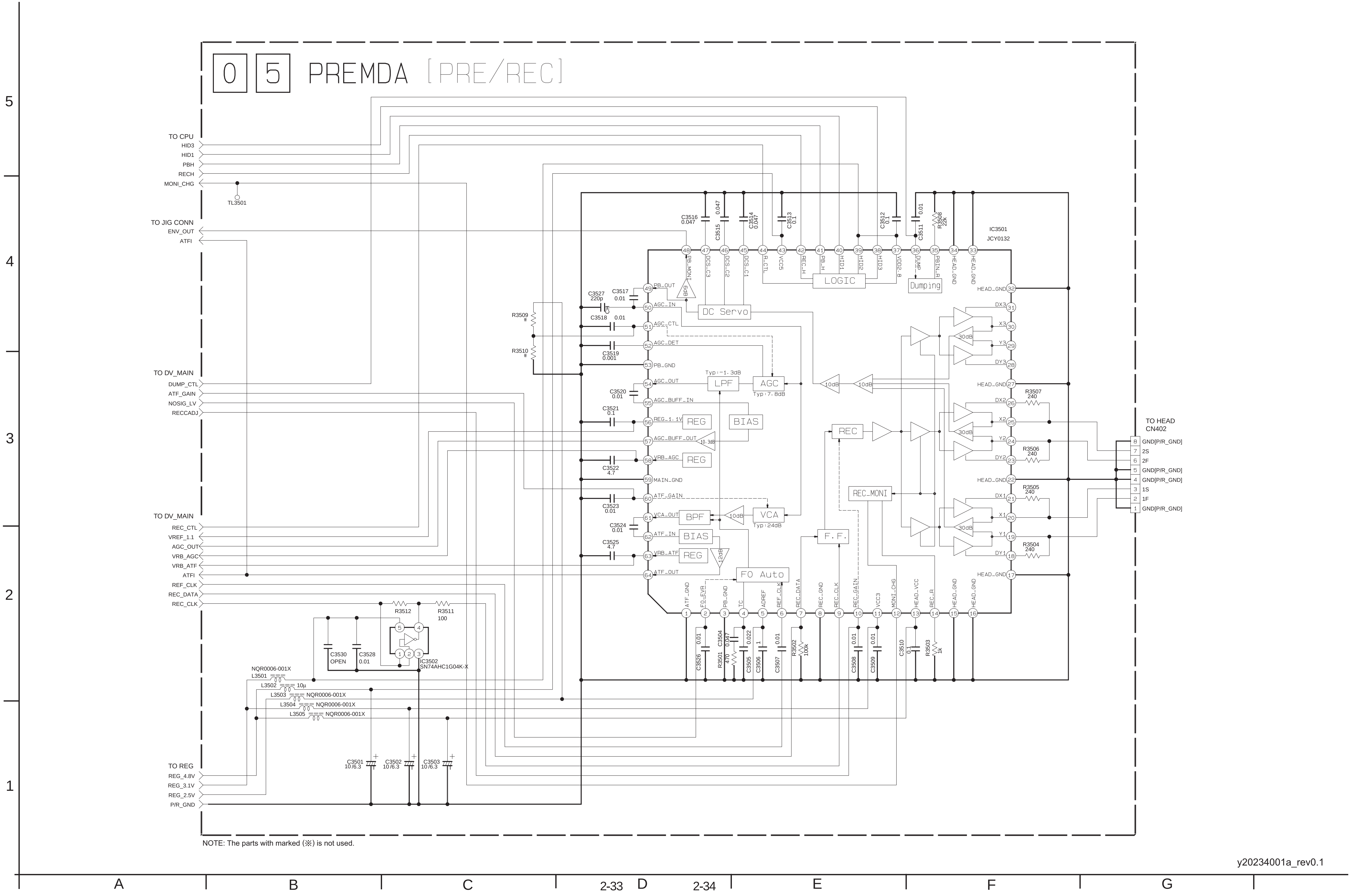


TO CPU
DRUM_PG
DRUM_FG
UNREG
DRUM_REF
C_FRB
CAP_FG
CAP_REF
LD_ON
L_FRB
MDA_PS
R1630 0
R1639 0
R1631 0
R1640 0
R1641 0
C1607 0.047
TL1612
TL1618
TL1613
TL1619
TL1617
R1642 0
F1601 R20 NMFZ007-R20X-K
R1648 0
R1620 10k
R1621 10k
R1629 560k
TL1601
DRUM_ERR
DRUM_PWR
GND
C1641 0.47
D1604 DAP222-X
TL1602
CAP_ERR
CAP_PWR
F1602 R50 NMFZ007-R50X-K
M_REG3V
TL1620
M_REG4.8
C1631
C1632 10/6.3
TL1606
TL1609
C1606 0.0015
R1604 100k
C1605 0.1
R1603 4.7k
C1603 10µ /6.3
R1601 680
R1602 120k
C1602 10µ /6.3
C1625 100p
C1624 0.01
C1627 0.0082
C1626 0.0082
R1624 18k
C1628 0.22
R1614 0.33
R1615
IC1601
BD6637KS
D.PCV
D.PCI
D.EC
D.VS
D.VM
UNREG
D.SL2
D.SL1
D.ISET
D.DETECT
VCC
D.FGSMT
D.FGIN-
D.FGAMP
D.FGPGIN+
D.PGIN-
D.PGAMP
D.PGSMT
C.HW-
C.HW+
C.HV-
C.HV+
C.HU-
C.HU+
C.W
C.RNF
C.V
C.U
D.COM
D.U
D.V
D.RNF
D.W
L.FRB
L.REF
L.FWD
L.GND
L.REV
L.VM
C.FGIN+
C.FGIN-
C.FGAMP
C.FGSMT
VG
CP1
CP2
GND
GDX
PS
C.RCC
C.FRB
C.VM
C.VS
C.EC
C.PCI
C.PCV
TL1607
TL1610
C1618 0.0022
C1619 0.0022
C1620 0.0022
MDA_2.9V
C_FG[+]
C_FG[-]
C_COIL_U
C_COIL_V
C_COIL_W
HG_W[-]
HG_W[+]
HG_V[-]
HG_V[+]
HG_U[-]
HG_U[+]
HG_BS[+]
HG_BS[-]
TO CAPSTAN MOTOR
R1611 470
R1610 470
TO LOADING MOTOR
LOAD_FWD
LOAD_REV
C1601 0.01
P/R_GND
D1602 DAP222-X
C1614 10µ /6.3
R1612 100k
R1613 1k
TL1608
C1621 1
TL1605
R1638 0
R1625 360
R1622 10k
C1629 10µ /20
C1630 0.33
R1616 3.3k
C1623 0.047
C1622 0.022
C1615
C1616
C1617
R1632
R1633
R1634
R1711 1K
R1712 1K
S_REEL
T_REEL
TO DRUM MOTOR
D_FG[-]
D_PG[-]
D_PFG[+]
COIL_COM
D_COIL_U
D_COIL_V
D_COIL_W
C1645
C1644
C1643
GND
R1617 0.33
R1618
R1710 120K
R1709 10K
R1701 82K
R1702 2.2K
R1703 2.2K
IC1702 LM393DMR2-X
IC1701 LM358DMR2-X
C1702 0.1
C1701 0.1
Q1601 UMC3N-W
D1603 DAP222-X
R1635 3.3k
R1637 150K
R1636 12k
C1633 0.47
R1708 120K
R1707 10K
R1706 82K
R1705 2.2K
R1704 2.2K
T_RL[+]
T_RL[-]
S_RL[+]
S_RL[-]
TO SENSOR
0 5 PREMDA(MDA)
1
2
3
4
5
A
B
C
D
E
F
G

NOTE: The parts with marked (*) is not used.

y20232001a_rev0.1

■ PRE/REC SCHEMATIC DIAGRAM

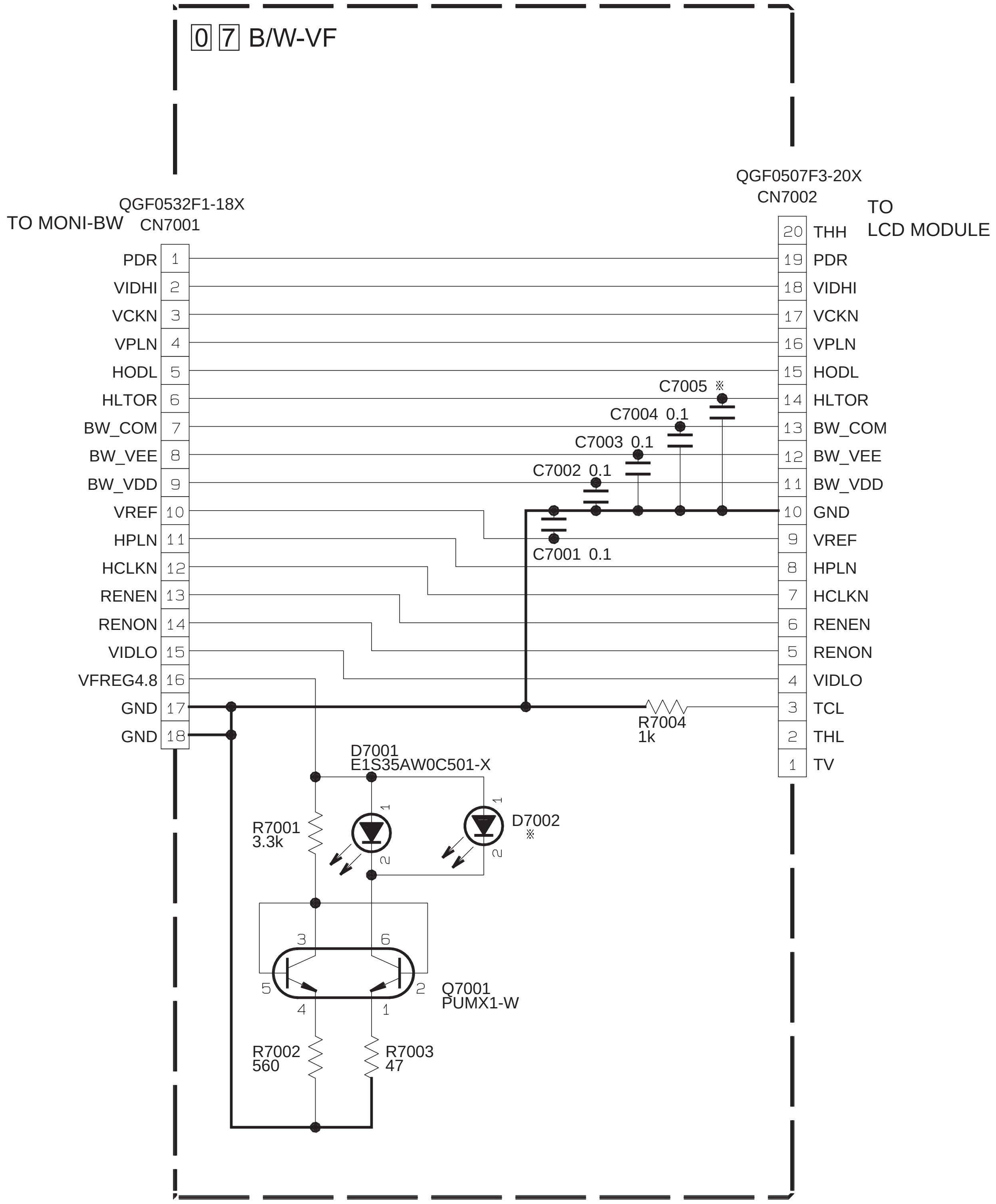


0 5 PREMDA [PRE/REC]
TO CPU
HID3
HID1
PBH
RECH
MONI_CHG
TL3501
TO JIG CONN
ENV_OUT
ATFI
TO DV_MAIN
DUMP_CTL
ATF_GAIN
NOSIG_LV
RECCADJ
TO DV_MAIN
REC_CTL
VREF_1.1
AGC_OUT
VRB_AGC
VRB_ATF
ATFI
REF_CLK
REC_DATA
REC_CLK
TO REG
REG_4.8V
REG_3.1V
REG_2.5V
P/R_GND
IC3501
JCY0132
IC3502
SN74AHC1G04K-X
LOGIC
Dumping
DC Servo
LPF
AGC
REG
BIAS
BPF
VCA
F0 Auto
REC
REC_MONI
F.F.
Typ:-1.3dB
Typ:7.8dB
Typ:24dB
10dB
30dB
PB_OUT
AGC_IN
AGC_CTL
AGC_DET
PB_GND
AGC_OUT
AGC_BUFF_IN
REG_1.1V
AGC_BUFF_OUT
VRB_AGC
MAIN_GND
ATF_GAIN
VCA_OUT
ATF_IN
VRB_ATF
ATF_OUT
ATF_GND
F0_EVR
PB_GND
TC
ADREF
REF_CLK
REC_DATA
REC_GND
REC_CLK
REC_GAIN
VCC3
MONI_CHG
HEAD_VCC
REC_R
HEAD_GND
PB_MONI
DCS_C3
DCS_C2
DCS_C1
R_CTL
VCC5
REC_H
PB_H
HID1
HID2
HID3
VDD2_8
DUMP
PBIN_R
DX3
X3
Y3
DY3
DX2
X2
Y2
DY2
DX1
X1
Y1
DY1
C3516 0.047
C3515 0.047
C3514 0.047
C3513 0.1
C3512 0.1
C3511 0.01
R3508 22k
C3527 220p CH
C3517 0.01
C3518 0.01
C3519 0.001
C3520 0.01
C3521 0.1
C3522 4.7
C3523 0.01
C3524 0.01
C3525 4.7
R3509 ※
R3510 ※
R3507 240
R3506 240
R3505 240
R3504 240
R3512
R3511 100
C3530 OPEN
C3528 0.01
C3526 0.01
C3504 0.047
R3501 470
C3505 0.022
C3506 1
C3507 0.01
R3502 100k
C3508 0.01
C3509 0.01
C3510 0.1
R3503 1k
NQR0006-001X
L3501
L3502 10µ
L3503 NQR0006-001X
L3504 NQR0006-001X
L3505 NQR0006-001X
C3501 10/6.3
C3502 10/6.3
C3503 10/6.3
TO HEAD
CN402
8 GND[P/R_GND]
7 2S
6 2F
5 GND[P/R_GND]
4 GND[P/R_GND]
3 1S
2 1F
1 GND[P/R_GND]
A
B
C
D
E
F
G
1
2
3
4
5

NOTE: The parts with marked (※) is not used.

y20234001a_rev0.1

■ B/W-VF SCHEMATIC DIAGRAM



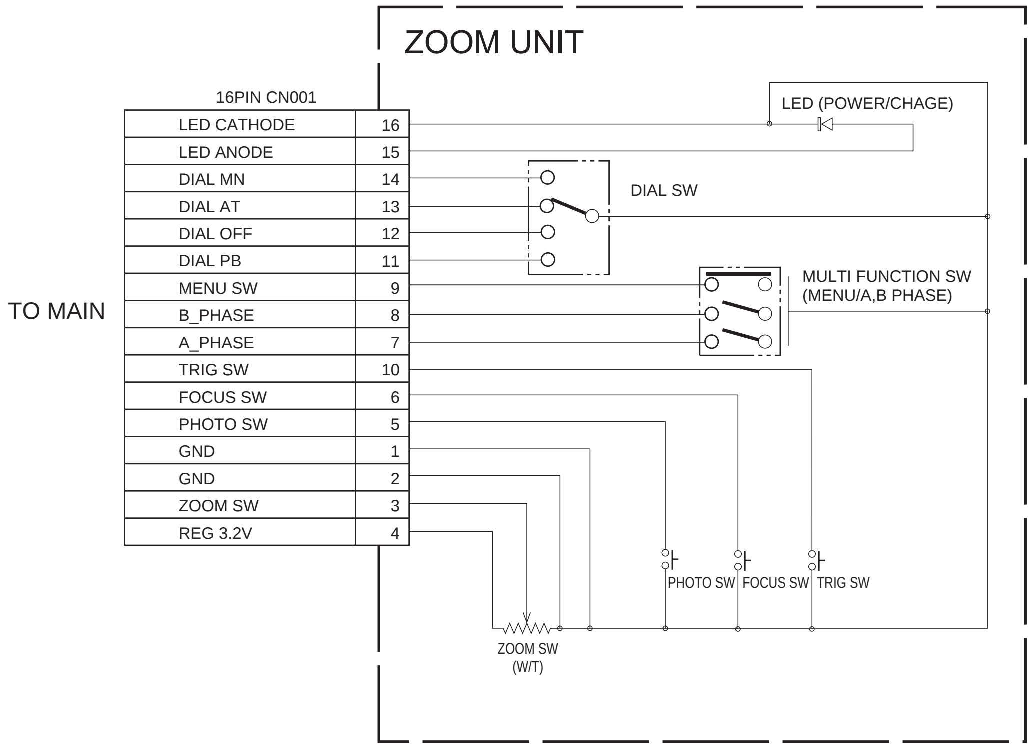
0 7 B/W-VF
TO MONI-BW
QGF0532F1-18X
CN7001
PDR 1
VIDHI 2
VCKN 3
VPLN 4
HODL 5
HLTOR 6
BW_COM 7
BW_VEE 8
BW_VDD 9
VREF 10
HPLN 11
HCLKN 12
RENEN 13
RENON 14
VIDLO 15
VFREG4.8 16
GND 17
GND 18
QGF0507F3-20X
CN7002
TO
LCD MODULE
20 THH
19 PDR
18 VIDHI
17 VCKN
16 VPLN
15 HODL
14 HLTOR
13 BW_COM
12 BW_VEE
11 BW_VDD
10 GND
9 VREF
8 HPLN
7 HCLKN
6 RENEN
5 RENON
4 VIDLO
3 TCL
2 THL
1 TV
C7005 ※
C7004 0.1
C7003 0.1
C7002 0.1
C7001 0.1
R7004
1k
D7001
E1S35AW0C501-X
D7002
※
R7001
3.3k
1
2
Q7001
PUMX1-W
3
6
5
2
4
1
R7002
560
R7003
47

NOTE: The parts with marked (※) is not used.

y40104001a_rev0.1

■ ZOOM UNIT SCHEMATIC DIAGRAM

NOTES : ● *The schematic diagram is only for reference. Avoid replacing individual parts. Replace the entire unit only.*

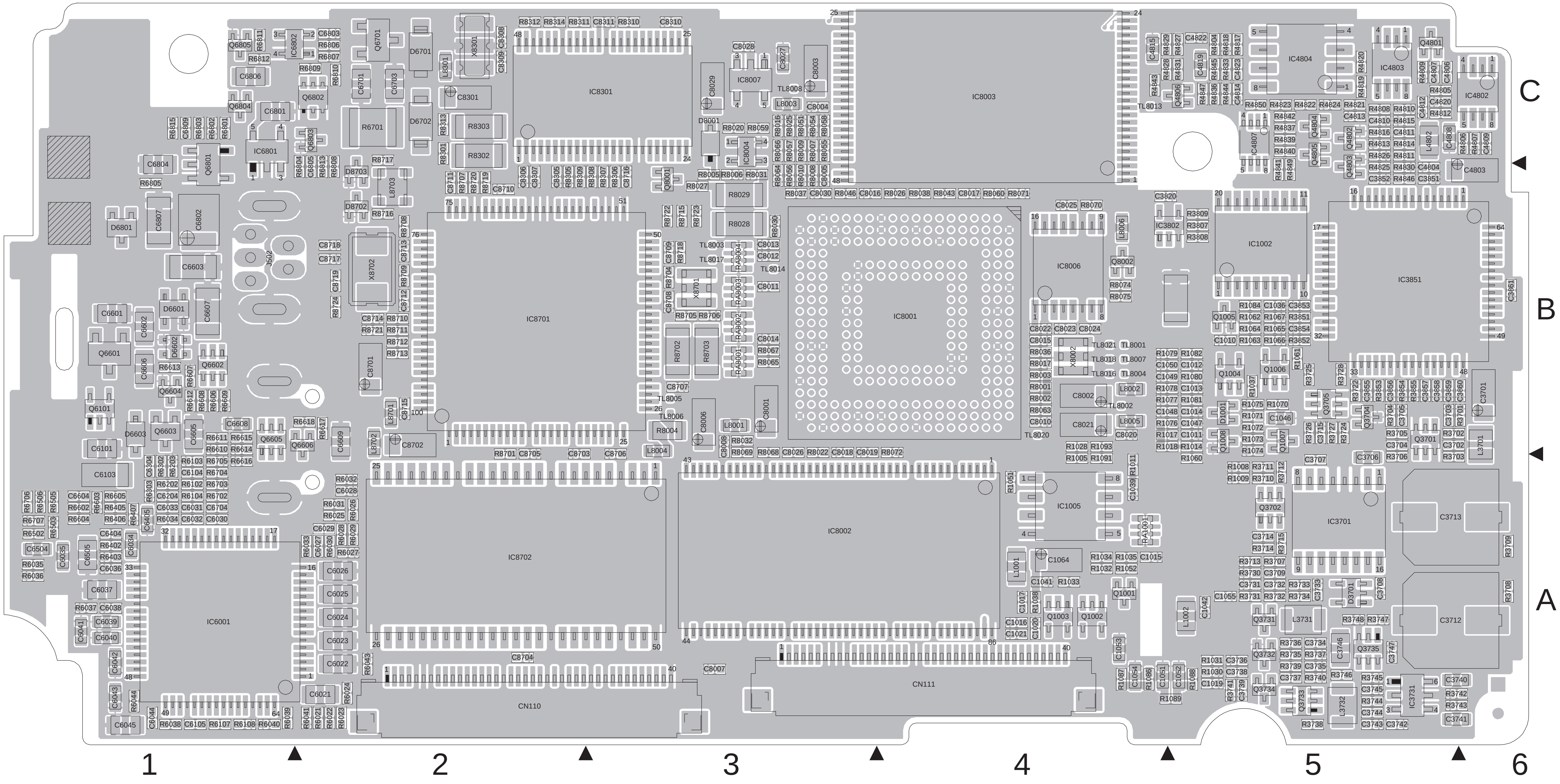


ZOOM UNIT
TO MAIN
16PIN CN001
LED CATHODE 16
LED ANODE 15
DIAL MN 14
DIAL AT 13
DIAL OFF 12
DIAL PB 11
MENU SW 9
B_PHASE 8
A_PHASE 7
TRIG SW 10
FOCUS SW 6
PHOTO SW 5
GND 1
GND 2
ZOOM SW 3
REG 3.2V 4
LED (POWER/CHAGE)
DIAL SW
MULTI FUNCTION SW
(MENU/A,B PHASE)
PHOTO SW
FOCUS SW
TRIG SW
ZOOM SW
(W/T)

■ MAIN CIRCUIT BOARD

<01> MAIN
YB 10404-01-01

FOIL SIDE(B)

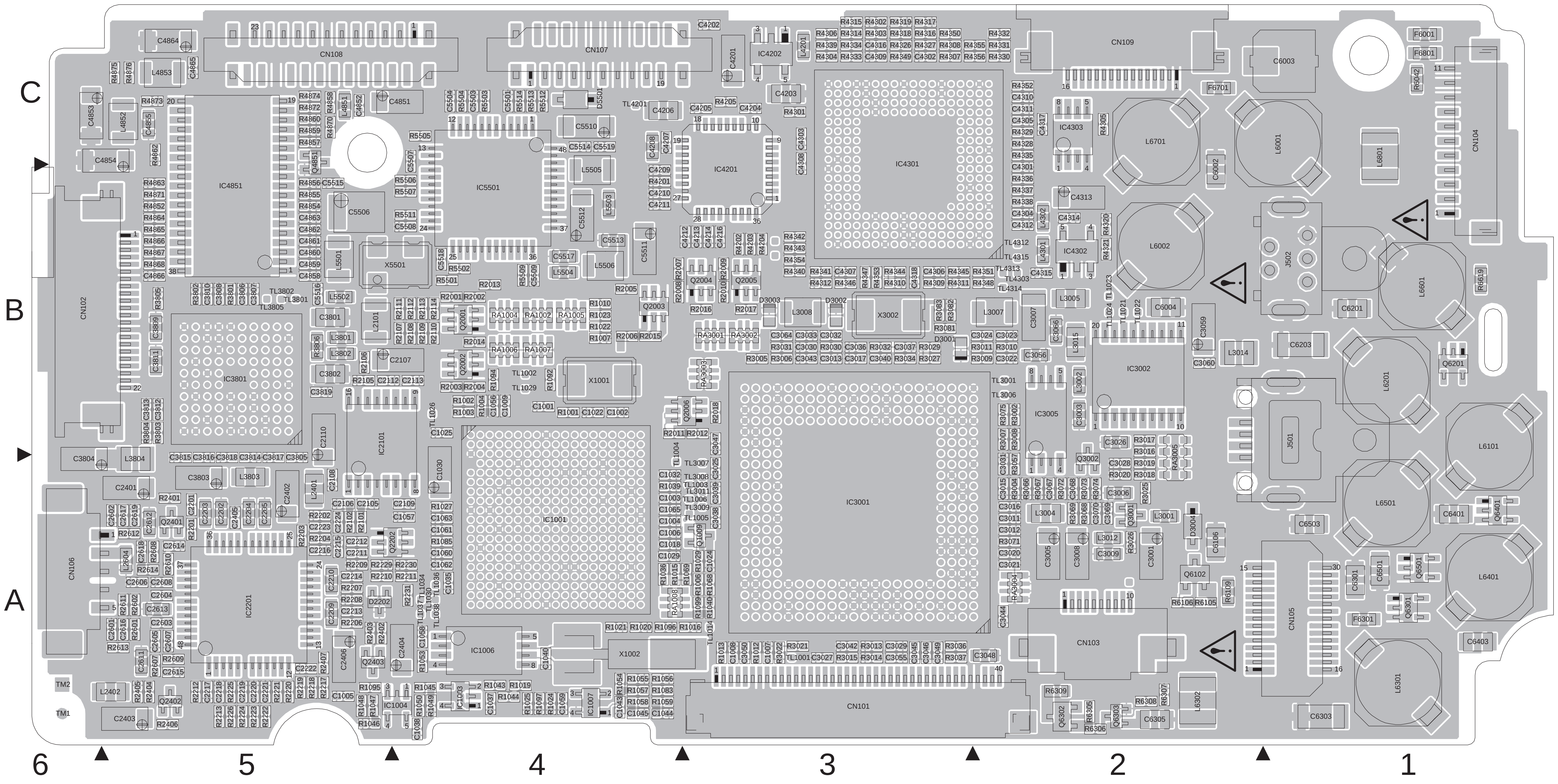


C
B
A
1
2
3
4
5
6
IC8301
IC8003
IC4804
IC4803
IC4802
IC6801
IC8007
IC8701
IC8001
IC8006
IC1002
IC3851
IC8702
IC8002
IC1005
IC3701
IC6001
CN110
CN111
C3713
C3712
X8301
X8701
X8702
X8002
R6701
D6701
D6702
Q6701
Q6801
Q6601
C6803
C6802
C6603
C6601
C6103
C6101
C6037
C6045
C6021
C8301
R8303
R8302
R8029
R8028
L8001
L8002
L8005
C8001
C8002
C8021
C8006
C1064
L1001
L1002
L3731
L3701
L4802
C3701
C4803

■ MAIN CIRCUIT BOARD

<01> MAIN
YB 10404-01-01

COMPONENT SIDE(A)


C
B
A
6
5
4
3
2
1
CN108
CN107
CN109
CN104
CN102
CN106
CN101
CN103
CN105
IC4851
IC5501
IC4201
IC4202
IC4301
IC4303
IC4302
IC3801
IC2101
IC2201
IC1001
IC1006
IC1004
IC1007
IC3001
IC3002
IC3005
X5501
X1001
X1002
X3002
J501
J502
L6701
L6001
L6002
L6601
L6201
L6101
L6501
L6401
L6301
L6801
C6003
TM1
TM2

COMPONENT PARTS LOCATION GUIDE <MAIN> YB 10404-01-01

REF.NO.	LOCATION
CAPACITOR	
C1001	A C 4B
C1002	A C 4B
C1003	A C 4A
C1004	A C 4A
C1005	A C 5A
C1006	A C 4A
C1007	A C 3A
C1008	A C 3A
C1009	A C 4B
C1010	B C 5B
C1011	B C 5B
C1012	B C 5B
C1013	B C 5B
C1014	B C 5B
C1015	B C 4A
C1016	B C 4A
C1017	B C 4A
C1018	A C 4A
C1019	B C 5A
C1020	B C 4A
C1021	B C 4A
C1022	A C 4B
C1024	A C 3A
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RA1001	B C 4A
RA1002	A C 4B
RA1004	A C 4B
RA1005	A C 4B
RA1006	A C 4B
RA1007	A C 4B
RA1008	A C 4A
RA3001	A C 3B
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RA3004	A C 2A
RA3005	A C 2A
RA8001	B C 3B
RA8002	B C 3B
RA8003	B C 3B
RA8004	B C 3B
OTHER	
J501	A C 1B
J502	A D 1B
TL1001	A C 3A
TL1002	A C 4B
TL1003	A C 3A
TL1004	A C 4A
TL1005	A C 3A
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TM2	A C 6A
TM5	A C 1A
TP110	B C 5B
X1001	A C 4B
X1002	A C 4A
X3002	A C 3B
X5501	A C 4B
X8002	B C 4B
X8301	B C 2C
X8701	B C 3B
X8702	B C 2B

COMPONENT PARTS LOCATION GUIDE <PREMDA> YB 10405-01-01

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C1603	A C 3B
C1605	A C 3B
C1606	A C 3B
C1607	A C 4B
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C1616	A C 3B
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C1633	A C 4B
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C3524	A C 2B
C3525	A C 2B
C3526	A C 2B
C3527	A C 2B
C3528	A C 1B
C3530	A C 1B
CONNECTOR	
CN401	A C 2A
CN402	A C 2C
CN403	A C 1B
CN404	A C 3C
CN405	A C 3C
CN406	A C 3B
CN407	A C 1B
CN408	A C 3A
DIODE	
D1602	A C 1B
D1603	A C 4B
D1604	A C 3A
FUSE	
F1601	A C 3A
F1602	A C 3A
IC	
IC1601	A C 3B
IC1701	A C 3A
IC1702	A C 4A
IC3501	A C 2B
IC3502	A C 1B
COIL	
L3501	A C 2A
L3502	A C 2A
L3503	A C 2A
L3504	A C 2A
L3505	A C 2A
TRANSISTOR	
Q1601	A C 4B
RESISTOR	
R1601	A C 3B
R1602	A C 3B
R1603	A C 3B
R1604	A C 3B
R1610	A C 3C
R1611	A C 4C
R1612	A C 3B
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TL1605	A C 3B
TL1606	A C 3A
TL1607	A C 3B
TL1608	A C 3C
TL1609	A C 3B
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TL3501	A C 2A
TM2	A C 4C
TM4	A C 4C
ZP1-1	A C 2B
ZP3-3	A C 1B
ZP3-5	A C 1B
ZP4-1	A C 3C
ZP4-2	A C 3A
ZP4-3	A C 3C
ZP4-5	A C 3C
ZP4-7	A C 3C
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ZP5-18	A C 4C
ZP6-10	A C 3B
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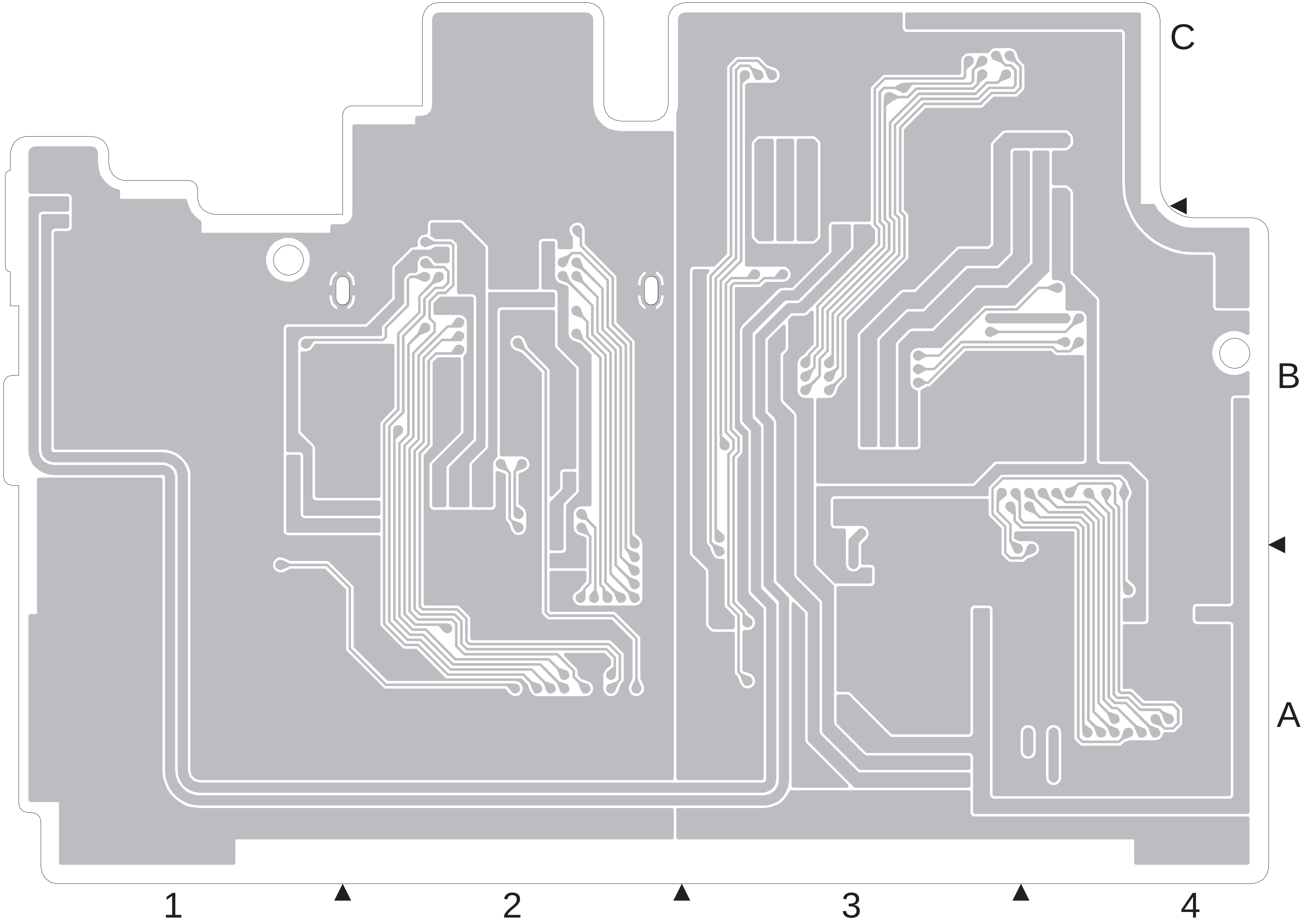
■ PREMDA CIRCUIT BOARD

<05> PREMDA
YB 10405-01-01

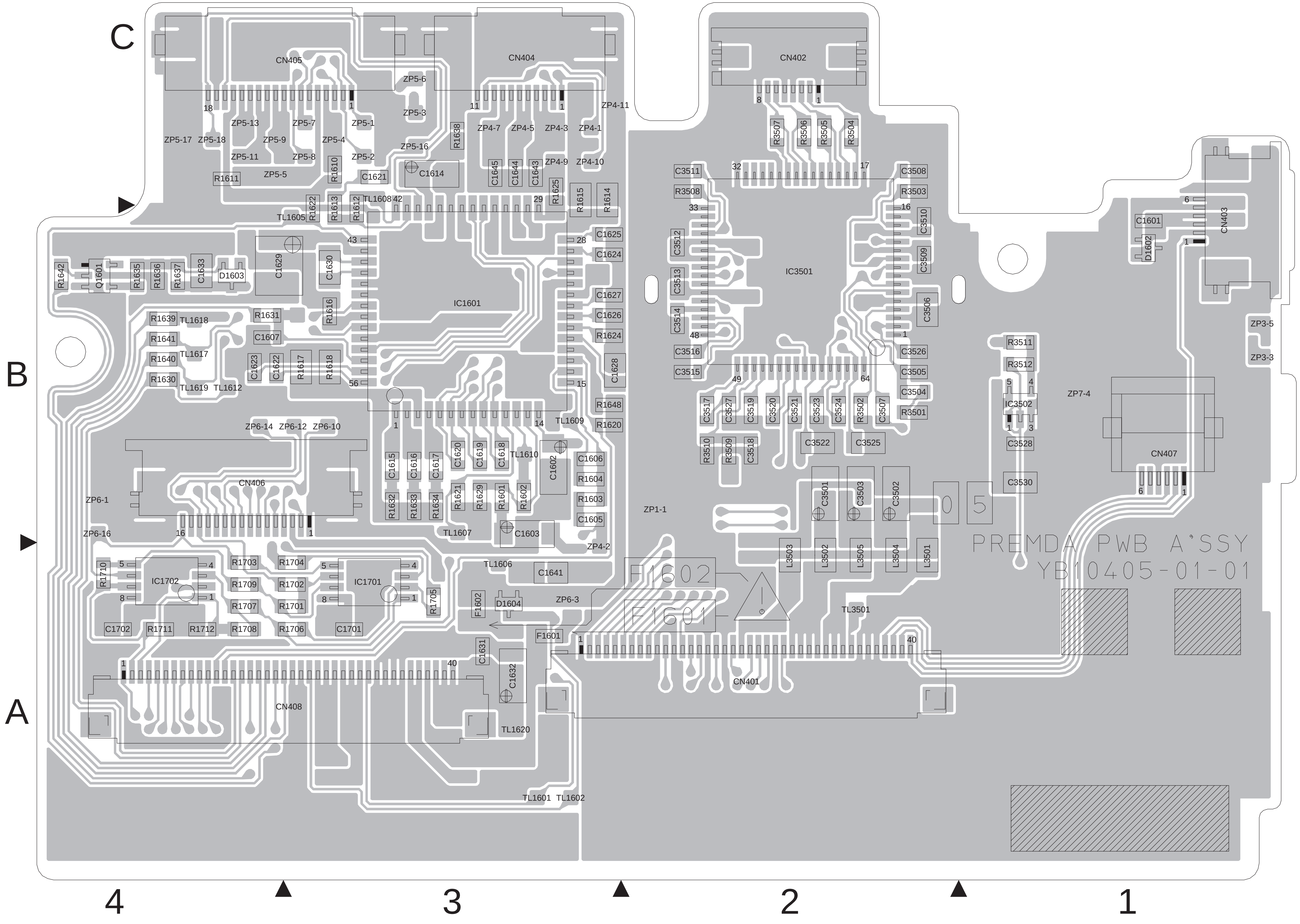
FOIL SIDE(B)



■ PREMDA CIRCUIT BOARD

<05> PREMDA
YB 10405-01-01

COMPONENT SIDE(A)



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IC3502
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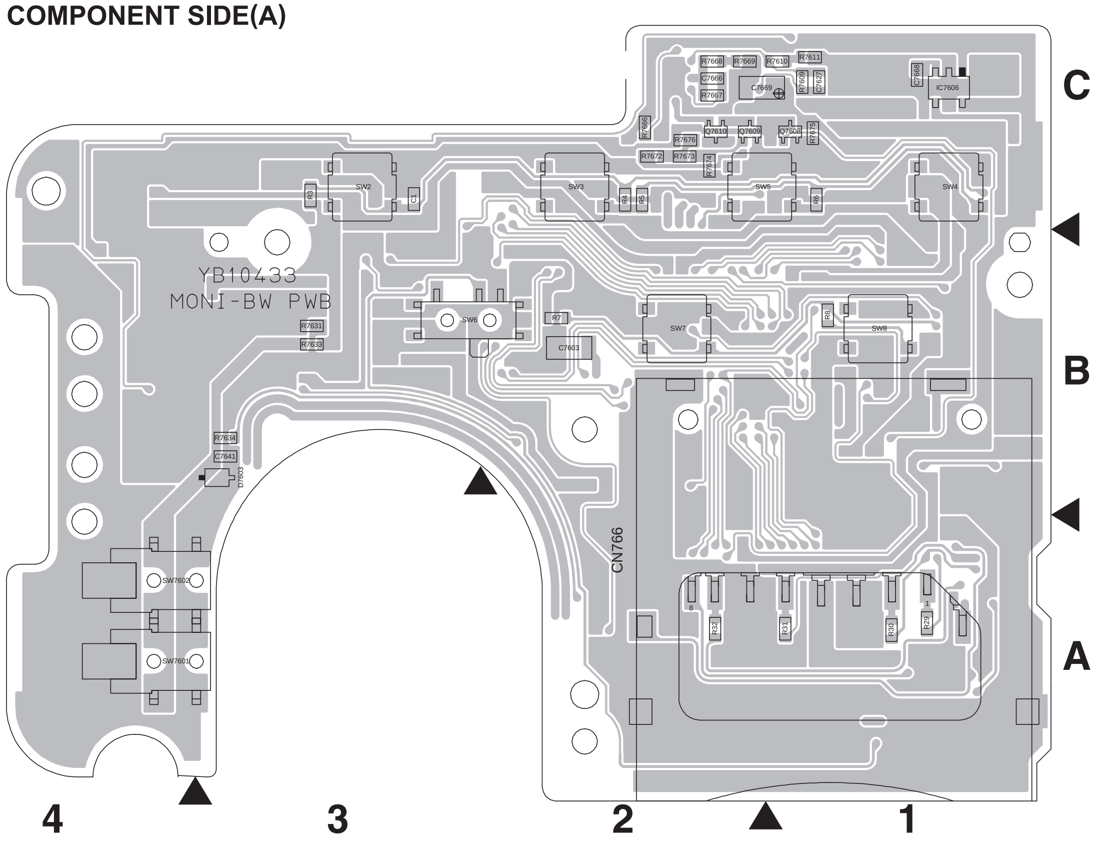
PREMDA PWB A'SSY
YB10405-01-01
F1602
F1601

■ MONI-BW CIRCUIT BOARD

COMPONENT SIDE(A)



<02> MONI-BW
YB 10433

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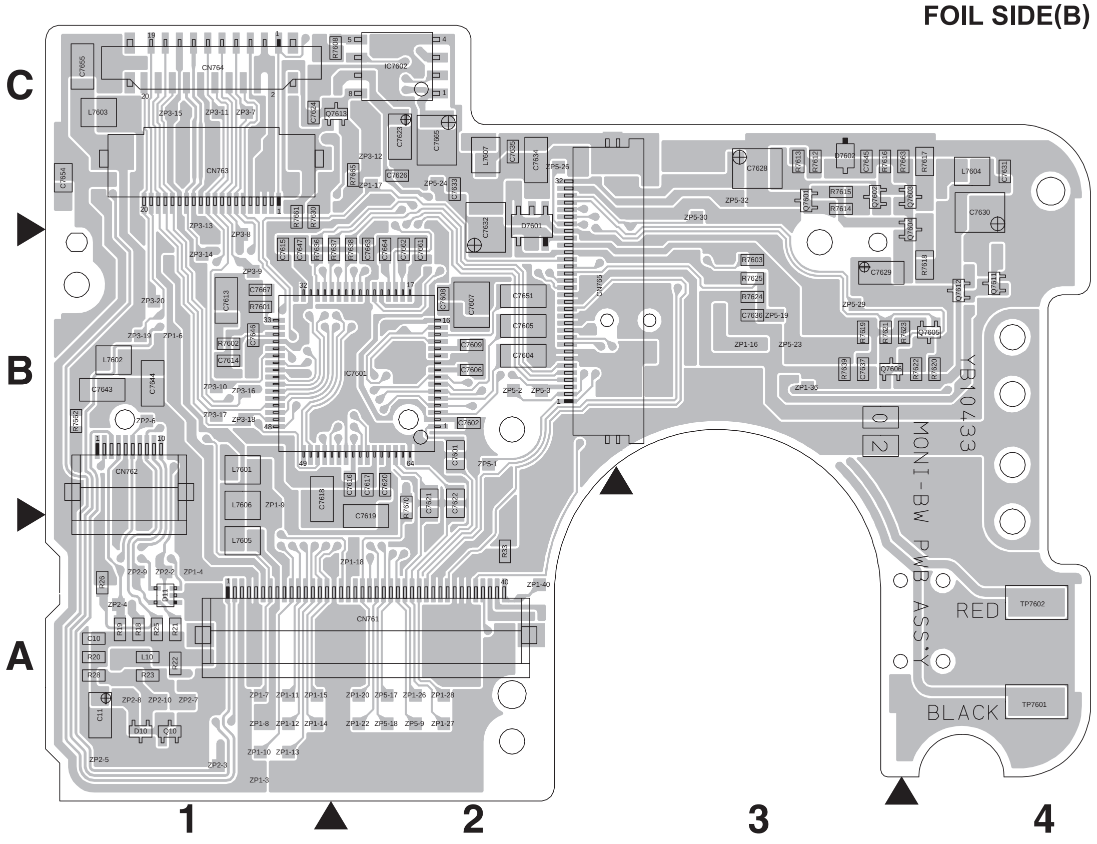

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■ BL-2.5 CIRCUIT BOARD

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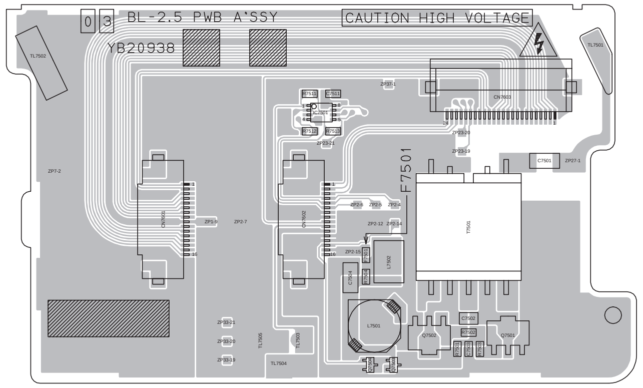

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YB 20938

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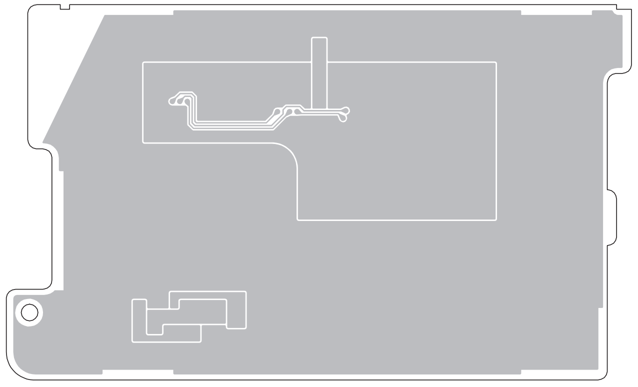


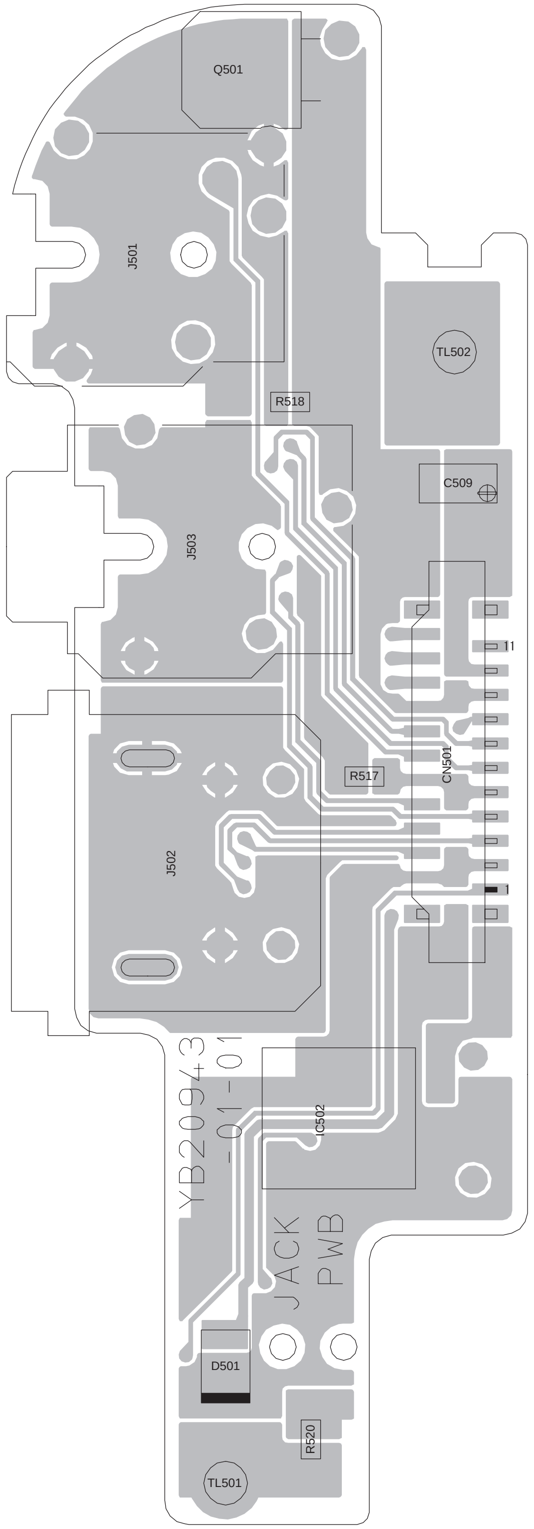
<03> BL-2.5
YB 20938

COMPONENT PARTS LOCATION GUIDE <MONI-BW> YB10433

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR		C7627	A C 1C	C7667	B C 1B	L7601	B C 1B	R5	A C 2C	R7613	B C 3C	R7667	A C 2C	ZP1-3	B C 1A	ZP1-15	B C 1A	ZP5-23	B C 3B
C1	A C 3C	C7628	B C 3C	C7668	A C 1C	L7602	B C 1B	R6	A C 1C	R7614	B C 3C	R7668	A C 2C	ZP1-4	B C 1A	ZP1-16	B C 3B	ZP5-24	B C 2C
C10	B C 1A	C7629	B C 3B	C7669	A C 2C	L7603	B C 1C	R7	A C 2B	R7615	B C 3C	R7669	A C 2C	ZP1-6	B C 1B	ZP1-17	B C 2C	ZP5-26	B C 2C
C11	B C 1A	C7630	B C 4C			L7604	B C 4C	R8	A C 1B	R7616	B C 3C	R7670	B C 2B	ZP1-7	B C 1A	ZP1-18	B C 2A	ZP5-29	B C 3B
C7601	B C 2B	C7631	B C 4C	**CONNECTOR**		L7605	B C 1A	R18	B C 1A	R7617	B C 4C	R7672	A C 2C	ZP1-8	B C 1A	ZP1-20	B C 2A	ZP5-30	B C 3C
C7602	B C 2B	C7632	B C 2C	CN761	B C 1A	L7606	B C 1B	R19	B C 1A	R7618	B C 4B	R7673	A C 2C	ZP1-9	B C 1B	ZP1-22	B C 2A	ZP5-32	B C 3C
C7603	A C 2B	C7633	B C 2C	CN762	B C 1B	L7607	B C 2C	R20	B C 1A	R7619	B C 3B	R7674	A C 2C	ZP2-2	B C 1A	ZP1-26	B C 2A		
C7604	B C 2B	C7634	B C 2C	CN763	B C 1C			R21	B C 1A	R7620	B C 4B	R7675	A C 1C	ZP2-3	B C 1A	ZP1-27	B C 2A		
C7605	B C 2B	C7635	B C 2C	CN764	B C 1C	**TRANSISTOR**		R22	B C 1A	R7621	B C 3B	R7676	A C 2C	ZP2-4	B C 1A	ZP1-28	B C 2A		
C7606	B C 2B	C7636	B C 3B	CN765	B C 2B	Q10	B C 1A	R23	B C 1A	R7622	B C 4B			ZP2-5	B C 1A	ZP1-36	B C 3B		
C7607	B C 2B	C7637	B C 3B	CN766	A C 1A	Q7601	B C 3C	R25	B C 1A	R7623	B C 4B	**OTHER**		ZP2-6	B C 1B	ZP1-40	B C 2A		
C7608	B C 2B	C7641	A C 3B			Q7602	B C 3C	R26	B C 1A	R7624	B C 3B	SW2	A C 3C	ZP2-7	B C 1A	ZP2-10	B C 1A		
C7609	B C 2B	C7643	B C 1B	**DIODE**		Q7603	B C 4C	R28	B C 1A	R7625	B C 3B	SW3	A C 2C	ZP2-8	B C 1A	ZP3-10	B C 1B		
C7613	B C 1B	C7644	B C 1B	D10	B C 1A	Q7604	B C 4C	R29	A C 1A	R7630	B C 1C	SW4	A C 1C	ZP2-9	B C 1A	ZP3-11	B C 1C		
C7614	B C 1B	C7645	B C 3C	D11	B C 1A	Q7605	B C 4B	R30	A C 1A	R7631	A C 3B	SW5	A C 2C	ZP3-7	B C 1C	ZP3-12	B C 2C		
C7615	B C 1B	C7646	B C 1B	D7601	B C 2C	Q7606	B C 4B	R31	A C 1A	R7633	A C 3B	SW6	A C 3B	ZP3-8	B C 1B	ZP3-13	B C 1C		
C7616	B C 2B	C7647	B C 1B	D7602	B C 3C	Q7608	A C 1C	R32	A C 2A	R7634	A C 3B	SW7	A C 2B	ZP3-9	B C 1B	ZP3-14	B C 1B		
C7617	B C 2B	C7651	B C 2B	D7603	A C 3B	Q7609	A C 2C	R33	B C 2A	R7636	B C 1B	SW8	A C 1B	ZP5-1	B C 2B	ZP3-15	B C 1C		
C7618	B C 1B	C7654	B C 1C			Q7610	A C 2C	R7601	B C 1B	R7637	B C 2B	SW7601	A C 4A	ZP5-2	B C 2B	ZP3-16	B C 1B		
C7619	B C 2B	C7655	B C 1C	**IC**		Q7611	B C 4B	R7602	B C 1B	R7638	B C 2B	SW7602	A C 4A	ZP5-3	B C 2B	ZP3-17	B C 1B		
C7620	B C 2B	C7661	B C 2B	IC7601	B C 2B	Q7612	B C 4B	R7603	B C 3B	R7639	B C 3B	TM1	A C 4A	ZP5-9	B C 2A	ZP3-18	B C 1B		
C7621	B C 2B	C7662	B C 2B	IC7602	B C 2C	Q7613	B C 2C	R7608	B C 2C	R7661	B C 1C	TM5	A C 4A	ZP1-10	B C 1A	ZP3-19	B C 1B		
C7622	B C 2B	C7663	B C 2B	IC7606	A C 1C			R7609	A C 1C	R7662	B C 1B	TM13	A C 4A	ZP1-11	B C 1A	ZP3-20	B C 1B		
C7623	B C 2C	C7664	B C 2B			**RESISTOR**		R7610	A C 1C	R7663	B C 4C	TM17	A C 3A	ZP1-12	B C 1A	ZP5-17	B C 2A		
C7624	B C 1C	C7665	B C 2C	**COIL**		R3	A C 3C	R7611	A C 1C	R7665	B C 2C	TP7601	B C 4A	ZP1-13	B C 1A	ZP5-18	B C 2A		
C7626	B C 2C	C7666	A C 2C	L10	B C 1A	R4	A C 2C	R7612	B C 3C	R7666	A C 2C	TP7602	B C 4A	ZP1-14	B C 1A	ZP5-19	B C 3B		

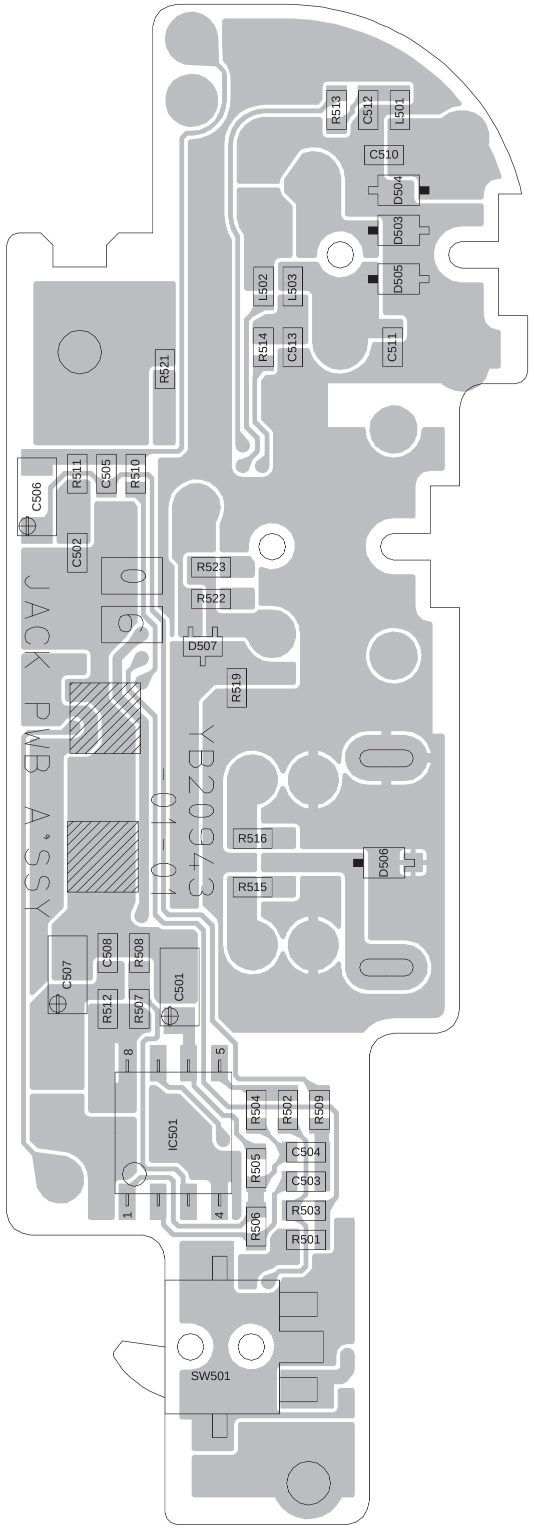
■ JACK CIRCUIT BOARD

COMPONENT SIDE(A)


Q501
J501
TL502
R518
C509
J503
11
R517
CN501
1
J502
YB20943
-01-01
C502
JACK
PWB
D501
R520
TL501

<06> JACK
YB 20943-01-01

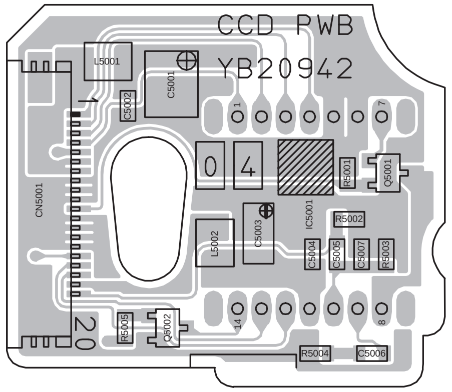
FOIL SIDE(B)


R513
C512
L501
C510
D504
D503
L502
L503
D505
R514
C513
C511
R521
C506
R511
C505
R510
C502
R523
R522
06
D507
R519
JACK PWB A'SSY
YB20943
-01-01
R516
R515
D506
C507
C508
R508
C501
R512
R507
8
5
IC501
1
4
R504
R502
R509
C504
R505
C503
R503
R506
R501
SW501

<06> JACK
YB 20943-01-01

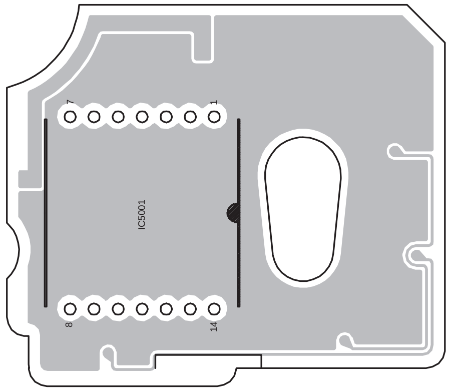
■ CCD CIRCUIT BOARD

COMPONENT SIDE(A)


CCD PWB
YB20942
L5001
C5001
C5002
CN5001
04
IC5001
Q5001
R5001
R5002
L5002
C5003
C5004
C5005
C5007
R5003
20
R5005
Q5002
R5004
C5006
1
7
14
8

<04> CCD
YB 20942

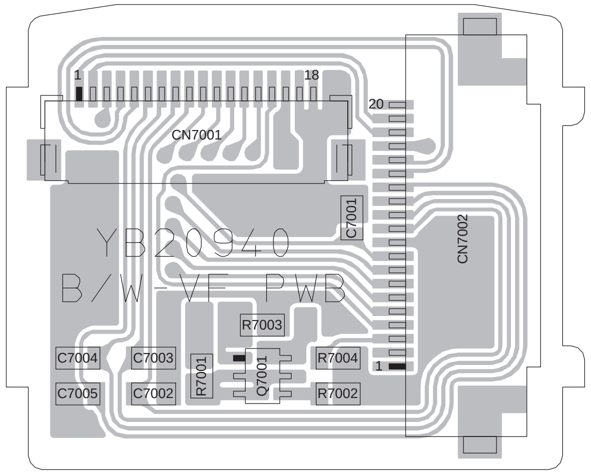
FOIL SIDE(B)


7
1
IC5001
8
14

<04> CCD
YB 20942

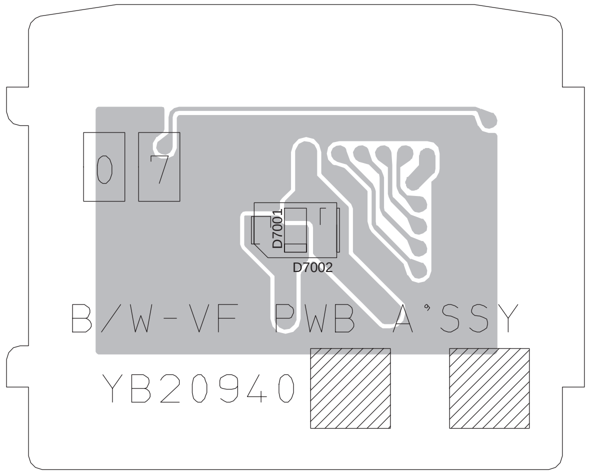
■ B/W-VF CIRCUIT BOARD

COMPONENT SIDE(A)


1
18
20
CN7001
C7001
CN7002
YB20940
B/W-VF PWB
R7003
C7004
C7003
R7001
Q7001
R7004
1
C7005
C7002
R7002

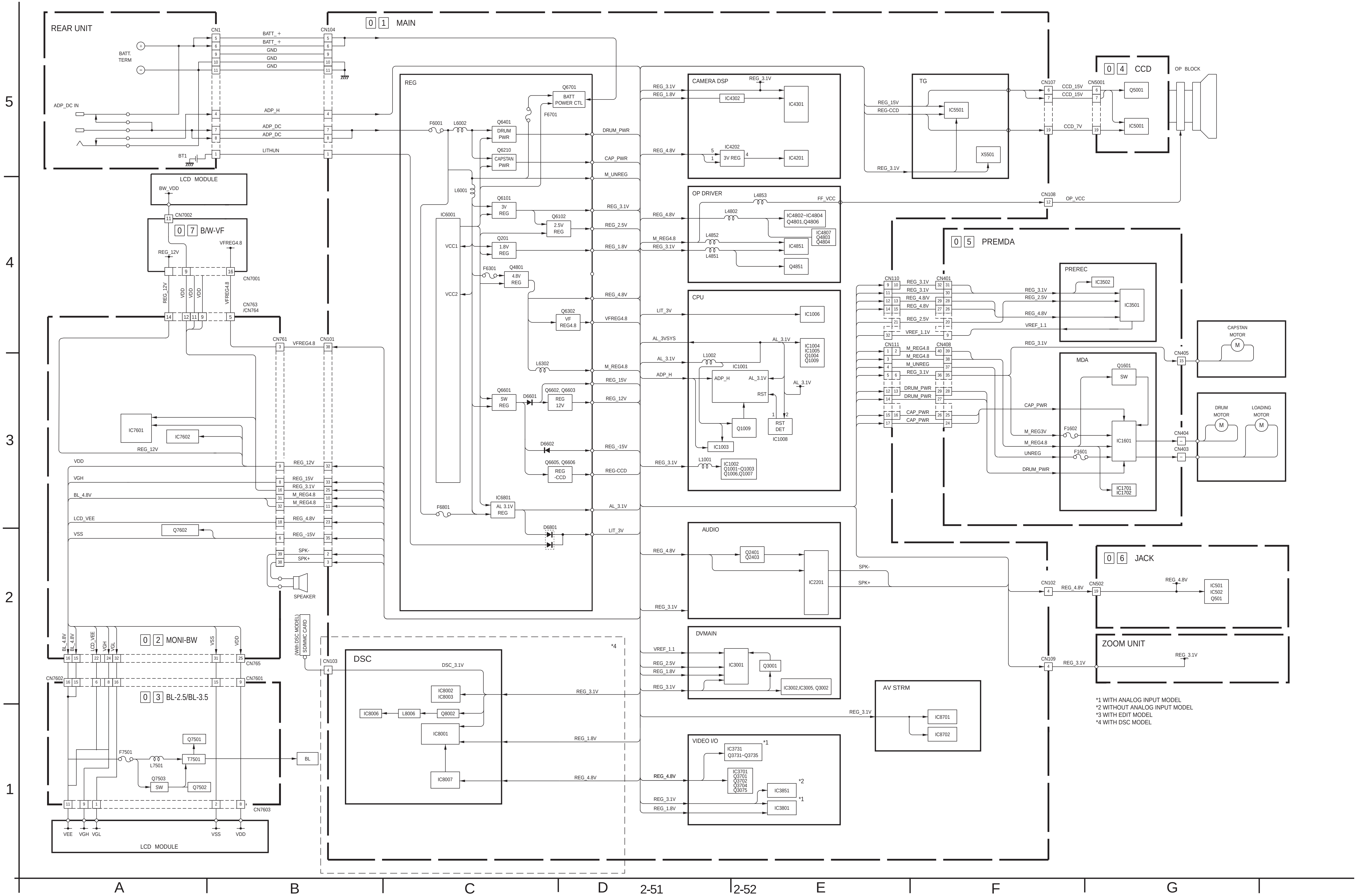
<07> B/W-VF
YB 20940

FOIL SIDE(B)


07
D7001
D7002
B/W-VF PWB A'SSY
YB20940

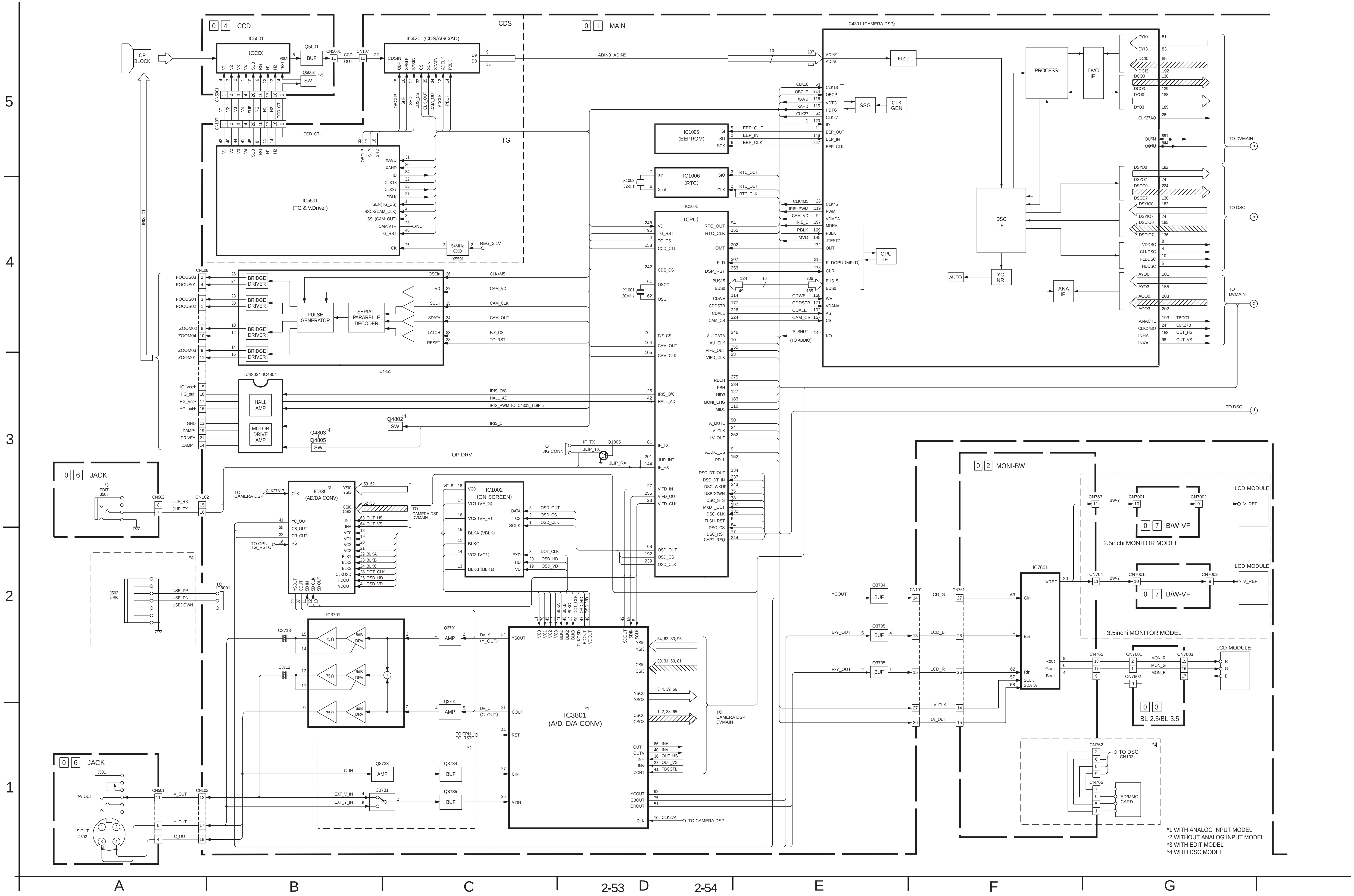
<07> B/W-VF
YB 20940

■ POWER SYSTEM BLOCK DIAGRAM


REAR UNIT
BATT. TERM
ADP_DC IN
BT1
CN1
CN104
BATT_+
GND
ADP_H
ADP_DC
LITHUN
0 1 MAIN
REG
F6001
L6002
Q6401 DRUM PWR
Q6210 CAPSTAN PWR
Q6701 BATT POWER CTL
F6701
L6001
IC6001
VCC1
VCC2
Q6101 3V REG
Q6102 2.5V REG
Q201 1.8V REG
F6301
Q4801 4.8V REG
Q6302 VF REG4.8
L6302
Q6601 SW REG
D6601
Q6602, Q6603 REG 12V
D6602
Q6605, Q6606 REG -CCD
F6801
IC6801 AL 3.1V REG
D6801
DRUM_PWR
CAP_PWR
M_UNREG
REG_3.1V
REG_2.5V
REG_1.8V
REG_4.8V
VFREG4.8
M_REG4.8
REG_15V
REG_12V
REG_-15V
REG-CCD
AL_3.1V
LIT_3V
CAMERA DSP
IC4302
IC4301
IC4202 3V REG
IC4201
OP DRIVER
L4853
FF_VCC
L4802
IC4802~IC4804 Q4801,Q4806
IC4807 Q4803 Q4804
L4852
L4851
IC4851
Q4851
M_REG4.8
CPU
LIT_3V
IC1006
AL_3VSYS
IC1004 IC1005 Q1004 Q1009
AL_3.1V
L1002
IC1001
ADP_H
RST
Q1009
RST DET
IC1008
IC1003
L1001
IC1002 Q1001~Q1003 Q1006,Q1007
TG
REG_15V
REG-CCD
IC5501
X5501
CN107
CN5001
CCD_15V
CCD_7V
0 4 CCD
Q5001
IC5001
OP BLOCK
CN108
OP_VCC
0 5 PREMDA
CN110
CN401
CN111
CN408
PREREC
IC3502
IC3501
REG_3.1V
REG_2.5V
REG_4.8V
VREF_1.1
MDA
M_REG4.8
M_UNREG
Q1601 SW
DRUM_PWR
CAP_PWR
M_REG3V
F1602
F1601
UNREG
IC1601
IC1701 IC1702
CN405
CAPSTAN MOTOR
M
CN404
CN403
DRUM MOTOR
LOADING MOTOR
AUDIO
Q2401 Q2403
IC2201
SPK-
SPK+
0 6 JACK
CN102
CN502
IC501 IC502 Q501
ZOOM UNIT
CN109
DVMAIN
VREF_1.1
IC3001
Q3001
IC3002,IC3005, Q3002
AV STRM
IC8701
IC8702
VIDEO I/O
IC3731 Q3731~Q3735
IC3701 Q3701 Q3702 Q3704 Q3075
IC3851
IC3801
*1
*2
*4
LCD MODULE
BW_VDD
CN7002
0 7 B/W-VF
REG_12V
VFREG4.8
CN7001
VDD
CN763 /CN764
CN761
CN101
IC7601
IC7602
Q7602
VGH
BL_4.8V
LCD_VEE
VSS
REG_15V
SPEAKER
(With DSC MODEL) SD/MMC CARD
CN103
DSC
DSC_3.1V
IC8002 IC8003
IC8006
L8006
Q8002
IC8001
IC8007
0 2 MONI-BW
CN765
CN7602
CN7601
0 3 BL-2.5/BL-3.5
F7501
L7501
Q7501
T7501
Q7503 SW
Q7502
BL
CN7603
VEE
VGL
A
B
C
D
E
F
G
1
2
3
4
5

*1 WITH ANALOG INPUT MODEL
*2 WITHOUT ANALOG INPUT MODEL
*3 WITH EDIT MODEL
*4 WITH DSC MODEL

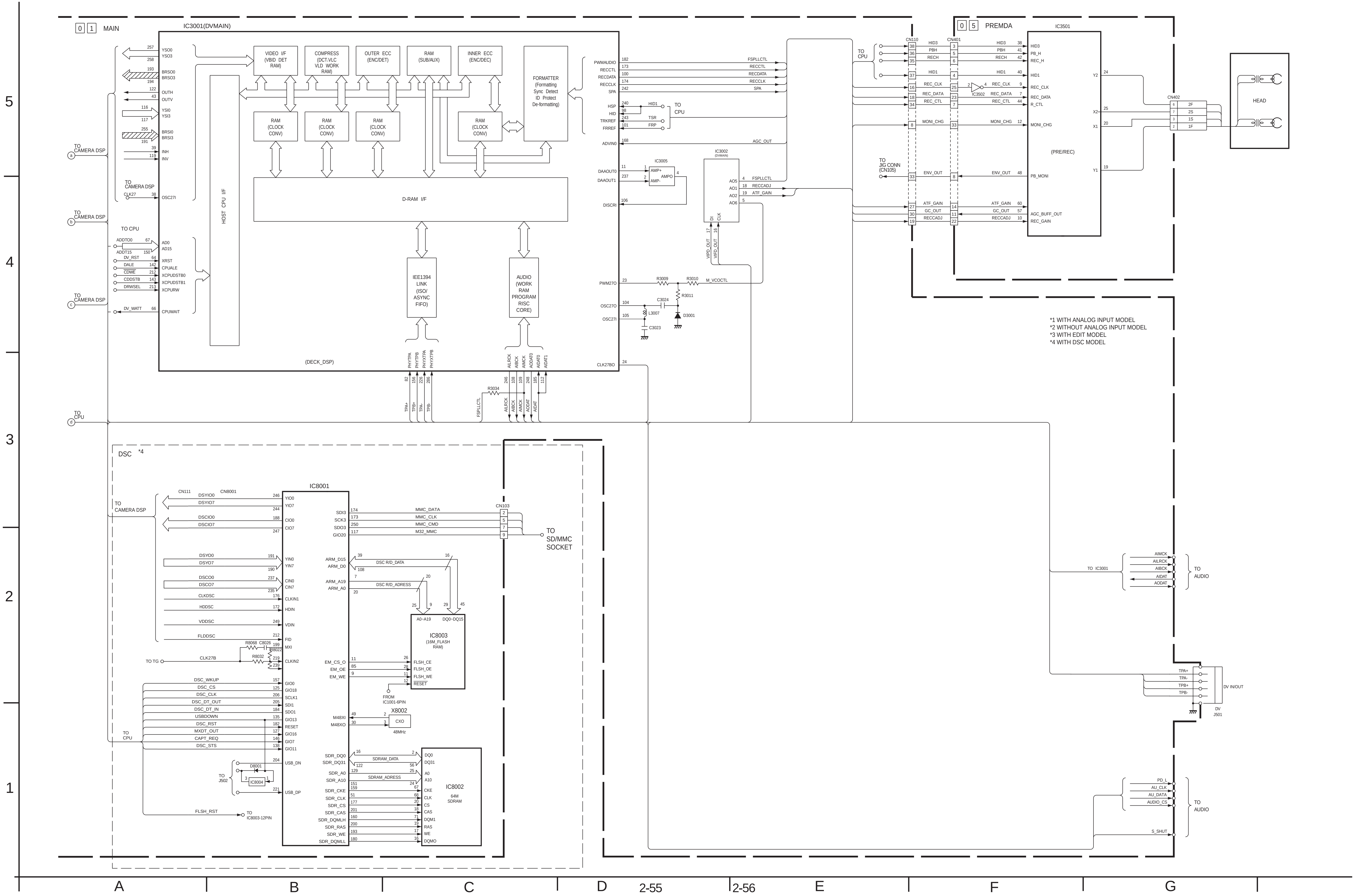
■ VIDEO BLOCK DIAGRAM (1/2)



04 CCD
01 MAIN
CDS
TG
OP DRV
OP BLOCK
IC5001 (CCD)
Q5001 BUF
Q5002 SW
CN5001
CN107
CCD OUT
IC4201(CDS/AGC/AD)
CDSIN
ADIN0~ADIN9
IC4301 (CAMERA DSP)
KIZU
PROCESS
DVC IF
SSG
CLK GEN
DSC IF
YC NR
AUTO
ANA IF
CPU IF
IC1005 (EEPROM)
IC1006 (RTC)
X1002 32kHz
IC1001 (CPU)
X1001 20MHz
IC5501 (TG & V.Driver)
54MHz CXO X5501
REG_3.1V
CCD_CTL
IRIS_CTL
CN108
FOCUS03
FOCUS01
FOCUS04
FOCUS02
ZOOM02
ZOOM04
ZOOM03
ZOOM01
BRIDGE DRIVER
PULSE GENERATOR
SERIAL-PARARELLE DECODER
IC4851
IC4802~IC4804
HALL AMP
MOTOR DRIVE AMP
HG_Vcc+
HG_out-
HG_Vss-
HG_out+
GND
DAMP-
DRIVE+
DAMP+
Q4802 SW
Q4803 Q4805 SW
TO JIG CONN
Q1005
IF_TX
JLIP_TX
JLIP_RX
TO DVMAIN
TO DSC
TO DVMAIN
TO DSC
06 JACK
EDIT J503
CN502
CN102
USB J502
USB_DP
USB_DN
USBDOWN
TO IC8001
IC3851 (AD/DA CONV)
TO CAMERA DSP
TO CAMERA DSP DVMAIN
TO CPU TG_RSTO
IC1002 (ON SCREEN)
IC3701
C3713
C3712
75Ω
6dB DRV
Q3701 AMP
IC3801 (A/D, D/A CONV)
TO CAMERA DSP DVMAIN
Q3733 AMP
Q3734 BUF
IC3731
Q3735 BUF
C_IN
EXT_V_IN
EXT_Y_IN
TO CAMERA DSP
06 JACK
J501
AV OUT
S OUT J502
CN501
V_OUT
Y_OUT
C_OUT
02 MONI-BW
YCOUT
B-Y_OUT
R-Y_OUT
Q3704 BUF
Q3705 BUF
CN101
CN761
LCD_G
LCD_B
LCD_R
LV_CLK
LV_OUT
IC7601
CN763
CN7001
CN7002
BW-Y
07 B/W-VF
LCD MODULE
V_REF
2.5inchi MONITOR MODEL
CN764
3.5inchi MONITOR MODEL
CN765
CN7601
CN7603
CN7602
MON_R
MON_G
MON_B
03 BL-2.5/BL-3.5
CN762
TO DSC CN103
CN766
SD/MMC CARD
A
B
C
D
E
F
G
1
2
3
4
5

*1 WITH ANALOG INPUT MODEL
*2 WITHOUT ANALOG INPUT MODEL
*3 WITH EDIT MODEL
*4 WITH DSC MODEL

■ VIDEO BLOCK DIAGRAM (2/2)


0 1 MAIN
IC3001(DVMAIN)
VIDEO I/F (VBID DET RAM)
COMPRESS (DCT.VLC VLD WORK RAM)
OUTER ECC (ENC/DET)
RAM (SUB/AUX)
INNER ECC (ENC/DEC)
FORMATTER (Formatting Sync Detect ID Protect De-formatting)
RAM (CLOCK CONV)
D-RAM I/F
HOST CPU I/F
IEE1394 LINK (ISO/ ASYNC FIFO)
AUDIO (WORK RAM PROGRAM RISC CORE)
(DECK_DSP)
YSO0
YSO3
BRSO0
BRSO3
OUTH
OUTV
YSI0
YSI3
BRSI0
BRSI3
INH
INV
OSC27I
AD0
AD15
XRST
CPUALE
XCPUDSTB0
XCPUDSTB1
XCPURW
CPUWAIT
TO CAMERA DSP
TO CPU
CLK27
ADDTO0
ADDT15
DV_RST
DALE
CDWE
CDDSTB
DRWSEL
DV_WATT
PWMAUDIO
RECCTL
RECDATA
RECCLK
SPA
HSP
HID
TRKREF
FRREF
ADVIN0
DAAOUT0
DAAOUT1
DISCRI
PWM27O
OSC27O
OSC27I
CLK27BO
FSPLLCTL
AGC_OUT
HID1
TSR
FRP
IC3005
AMP+
AMP-
AMPO
IC3002 (DVMAIN)
AO5
AO1
AO2
AO6
RECCADJ
ATF_GAIN
DI
CLK
VIPD_OUT
VIFD_OUT
R3009
R3010
M_VCOCTL
R3011
C3024
L3007
D3001
C3023
PHYTPA
PHYTPB
PHYXTPA
PHYXTPB
TPA+
TPB+
TPA-
TPB-
AILRCK
AIBCK
AIMCK
AODAT0
AIDAT0
AIDAT1
R3034
FSPLLCTL
AODAT
AIDAT
0 5 PREMDA
IC3501
CN110
CN401
HID3
PBH
RECH
HID1
REC_CLK
REC_DATA
REC_CTL
MONI_CHG
ENV_OUT
ATF_GAIN
GC_OUT
RECCADJ
IC3502
PB_H
REC_H
R_CTL
PB_MONI
AGC_BUFF_OUT
REC_GAIN
(PRE/REC)
Y2
X2
X1
Y1
CN402
2F
2S
1S
1F
HEAD
TO JIG CONN (CN105)
DSC *4
IC8001
CN111
CN8001
DSYIO0
DSYIO7
DSCIO0
DSCIO7
DSYO0
DSYO7
DSCO0
DSCO7
CLKDSC
HDDSC
VDDSC
FLDDSC
CLK27B
TO TG
R8068
C8026
R8032
DSC_WKUP
DSC_CS
DSC_CLK
DSC_DT_OUT
DSC_DT_IN
USBDOWN
DSC_RST
MXDT_OUT
CAPT_REQ
DSC_STS
FLSH_RST
TO IC8003-12PIN
TO J502
D8001
IC8004
YIO0
YIO7
CIO0
CIO7
YIN0
YIN7
CIN0
CIN7
CLKIN1
HDIN
VDIN
FID
MXI
CLKIN2
GIO0
GIO18
SCLK1
SDI1
SDO1
GIO13
RESET
GIO16
GIO7
GIO11
USB_DN
USB_DP
SDI3
SCK3
SDO3
GIO20
MMC_DATA
MMC_CLK
MMC_CMD
M32_MMC
CN103
TO SD/MMC SOCKET
ARM_D15
ARM_D0
ARM_A19
ARM_A0
DSC R/D_DATA
DSC R/D_ADRESS
A0~A19
DQ0~DQ15
IC8003 (16M_FLASH RAM)
EM_CS_O
EM_OE
EM_WE
FLSH_CE
FLSH_OE
FLSH_WE
RESET
FROM IC1001-6PIN
M48XI
M48XO
X8002
CXO
48MHz
SDR_DQ0
SDR_DQ31
SDR_A0
SDR_A10
SDR_CKE
SDR_CLK
SDR_CS
SDR_CAS
SDR_DQMLH
SDR_RAS
SDR_WE
SDR_DQMLL
SDRAM_DATA
SDRAM_ADRESS
IC8002 64M SDRAM
DQ0
DQ31
A0
A10
CKE
CLK
CS
CAS
DQM1
RAS
WE
DQMO
TO IC3001
AIMCK
AILRCK
AIBCK
AIDAT
AODAT
TO AUDIO
TPA+
TPA-
TPB+
TPB-
DV IN/OUT
DV J501
PD_L
AU_CLK
AU_DATA
AUDIO_CS
S_SHUT
A
B
C
D
E
F
G
1
2
3
4
5

*1 WITH ANALOG INPUT MODEL
*2 WITHOUT ANALOG INPUT MODEL
*3 WITH EDIT MODEL
*4 WITH DSC MODEL

VOLTAGE CHARTS

<MAIN IF>

MODE PIN NO.	REC	PLAY
Q2001		
1	0	0
2	0.5	0.5
3	3.0	3.0
4	0	0
5	0	0
6	0	0
Q2002		
1	0	0
2	0	0
3	0	2.9
4	0	0
5	0.5	0
6	0.5	0
Q2003		
1	0	0
2	0.5	0.5
3	3.0	2.3
4	0	0
5	0	0
6	0	0
Q2004		
1	0	0
2	0.5	0
3	2.9	0
4	0	0
5	0	0.5
6	0	0.5
Q2005		
1	0	0
2	0.5	0.5
3	2.9	2.9
4	0	0
5	0	0
6	0	0
Q2006		
1	0	0
2	0.4	0.4
3	2.9	2.9
4	0	0
5	0	0
6	0	0

<CPU>

MODE PIN NO.	REC	PLAY
IC1001	-	-
IC1002		
1	2.8	2.8
2	2.5	2.5
3	2.7	2.7
4	3	3
5	3.1	3.1
6	3.1	3.1
7	1.4	1.4
8	1.5	1.5
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	3	3
20	2.8	2.8
IC1003		
1	0	0
2	3	3
3	0	0
4	3	3
5	3	3
IC1004		
1	1.2	1.2
2	0	0
3	1.4	1.4
4	0	0
5	3	3
IC1005		
1	3	3
2	0	0
3	3	3
4	0	0
5	3	3
6	3	3
7	3	3
8	3	3
IC1006		
1	0	0
2	3	3
3	3	3
4	0	0
5	3	-
6	0.5	0.5
7	0.4	0.8
8	3	3.2
IC1007		
1	3	3
2	3	3
3	0	0
4	0	0
Q1001		
E	3.1	3.1
C	3.1	3.1
B	3	3
Q1002		
1	0	0
2	3	3
3	0	3.1
4	0	2.9
5	0	0
Q1003		
1	0	0
2	3	0
3	3.1	3.1
4	-0.8	-0.4
5	3.1	3.1
Q1004		
1	0	0
2	3	3
3	3	3
4	3	3
5	0	0
Q1005		
E	0	0
C	1	0.4
B	0	0
Q1006		
1	0	0
2	3	0
3	3.1	3.1
4	3	-0.2
5	0	3.1
Q1007		
E	0	0
C	3.1	3.1
B	0.5	0.5
Q1008		
E	0	0
C	0	0
B	3	0

MODE PIN NO.	REC	PLAY
Q1009		
D	3	3
S	0	0
G	3	3

<AUDIO>

MODE PIN NO.	REC	PLAY
IC2201		
1	0	0
2	0	0
3	0	0
4	3	3
5	3.1	3.1
6	0	0
7	1.5	1.5
8	1.4	1.4
9	1.5	1.5
10	2.9	2.9
11	2.9	2.9
12	3	3
13	1.5	1.5
14	1.5	1.5
15	3	3
16	0	0
17	1.5	1.5
18	2.4	2.4
19	1.5	1.5
20	2.4	2.4
21	1.5	1.5
22	0.2	2.4
23	1.5	1.5
24	0.2	2.4
25	0.9	0.9
26	0	0
27	0	0
28	4.8	4.8
29	0	0
30	2.4	2.4
31	0	0
32	3	3
33	1.5	1.5
34	0.8	1.1
35	0.8	1.1
36	1.5	1.5
37	1.5	1.5
38	1.5	1.5
39	1.5	0.2
40	1.5	0
41	0	0
42	4	4.7
43	2.6	0
44	4	4.4
45	1.5	0.2
46	1.5	0.2
47	1.5	1.5
48	1.5	1.5
Q2202		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
Q2401		
E	4	4.7
C	4.8	4.8
B	4.8	4.8
Q2403		
E	3	3
C	4.8	4.8
B	3.7	3.7

<DV MAIN>

MODE PIN NO.	REC	PLAY
IC3001	-	-
IC3002		
1	0	0
2	0.5	0.5
3	0.4	0.4
4	1.7	1.7
5	0.7	0.7
6	2.4	2.4
7	1.2	1.2
8	3.1	3.1
9	3.1	3.1
10	3.1	3.1
11	3.1	3.1
12	2.1	2.1
13	1.1	1.1
14	0	0
15	0	0
16	3	3
17	3	3
18	1.4	1.4
19	1.3	1.3
20	0	0
IC3005		
1	0	0.4
2	0	0.4
3	0	0
4	0.8	1.7
5	0	0
6	0	0
7	0	0
8	0	3.1
Q3001		
E	1.8	1.8
C	2.9	2.9
B	2.4	2.4
Q3002		
E	0.3	1.2
C	3.1	3.1
B	0.8	1.7

<VIDEO I/O>

MODE PIN NO.	REC	PLAY
IC3701		
1	0	0
2	2.3	2.3
3	0	0
4	0	0
5	0	0
6	0	0
7	1.9	1.9
8	0	0
9	2.3	2.3
10	0	0
11	2.1	2.1
12	2.1	2.1
13	4.8	4.8
14	1.9	1.9
15	1.9	1.9
16	4.8	4.8
IC3731		
1	3	3
2	2	2
3	4.8	4.8
4	1.7	1.7
5	0	0
6	2.3	2.3
IC3801	-	-
IC3851	-	-
Q3701		
1	1.2	1.2
2	0.6	0.6
3	0	0
4	1.4	1.4
5	0.8	0.8
6	0	0
Q3702		
1	0.2	0
2	0	0
3	0	0
4	4.8	4.8
5	4.9	4.7
6	4.9	4.7
Q3704		
E	0.9	0.9
C	0	0
B	0.3	0.3
Q3705		
1	0.9	0.9
2	0.3	0.3
3	0	0
4	0.9	0.9
5	0.3	0.3
6	0	0
Q3731		
E	0	0
C	4.8	4.8
B	0	0
Q3732		
E	0	0
C	0	0
B	3	3
Q3733		
1	0	0
2	0.4	0.4
3	0	0
4	4.8	4.8
5	4.8	4.8
6	4.8	4.8
Q3734		
E	0	0
C	4.8	4.8
B	0	0
Q3735		
1	0.1	0.1
2	0.4	0.4
3	0	0
4	2.1	2.1
5	1.5	1.5
6	4.8	4.8

<CDS/DSP>

MODE PIN NO.	REC	PLAY
IC4201		
1	1.2	0
2	1.2	0
3	0.5	0
4	0.2	0
5	0	3
6	0	0
7	0	0
8	0	0
9	1.2	0
10	3	3
11	0	0
12	1.5	1.5
13	3	3
14	2.5	0
15	3	0
16	2.4	0
17	2.5	0
18	0	0
19	3	3
20	1.9	0
21	1.9	0
22	2	0
23	1.9	0
24	1.2	0
25	3	3
26	0	0
27	0	0
28	1.4	0
29	2	0
30	0.9	0
31	3	3
32	0	0
33	3	3
34	3	3
35	3	3
36	1.2	0
IC4202		
1	4.8	4.8
2	0	0
3	1.2	1.2
4	3	3
5	4.8	4.8
IC4301	-	-
IC4302		
1	1.6	1.8
2	0	0
3	1.8	1.8
4	1.8	1.8
5	1.4	1.4

<OP DRIVE>

MODE PIN NO.	REC	PLAY
IC4802		
1	3.1	3.1
2	2.6	2.6
3	2.6	2.6
4	0	0
5	2.6	2.6
6	2.6	2.6
7	2.6	2.6
8	4.8	4.8
IC4803		
1	1.3	1.3
2	0.6	0.6
3	0.6	0.6
4	0	0
5	2.6	2.6
6	2.6	2.6
7	1.6	2.8
8	4.8	4.8
IC4804		
1	1.3	0.3
2	1.6	2.6
3	1.6	0
4	0	0
5	1.5	3
6	1.5	3
7	2	0
8	4.8	4.8
IC4807		
1	1.5	3
2	1.5	3
3	4.8	4.8
4	0	0
5	1.5	3
6	1.5	3
7	4.8	4.8
8	4.8	4.8
IC4851		
1	0	0
2	0.6	0.6
3	0.3	0.3
4	0	0
5	0	0.3
6	0.3	0
7	0	0
8	3.1	3.1
9	4.6	4.6
10	0.6	0.6
11	0	0
12	0.7	0.5
13	4.6	4.6
14	0.7	0.7
15	0	0
16	0.7	0.7
17	0	0
18	0	0
19	0	0
20	0	0
21	0	0
22	0	0
23	4.6	4.6
24	0.8	1.5
25	0	0
26	0.8	1.5
27	4.8	4.6
28	0.8	1.5
29	0	0
30	0.8	1.5
31	3.1	3.1
32	0	0
33	0	0
34	3	3
35	3	3
36	1.5	1.5
37	1.5	1.5
38	3	3
Q4801		
E	0.6	0.6
C	2.1	2.1
B	1.3	1.3
Q4802		
E	0	0
C	1.5	3
B	0	0
Q4803		
E	0	0
C	4.8	4.8
B	0	0
Q4804		
E	4.8	4.8
C	1.5	3
B	4.8	4.8
Q4805		
E	4.8	4.8
C	1.5	3
B	4.8	4.8

MODE PIN NO.	REC	PLAY
Q4806		
E	1.2	0
C	4.8	4.8
B	2	0
Q4851		
E	0	0
C	3.5	3.7
B	0	0

<TG>

MODE PIN NO.	REC	PLAY
IC5501		
1	0	0
2	3	3
3	3	3
4	3	3.1
5	0	0
6	3	3.1
7	0.3	0
8	0.3	0
9	0	0
10	3	3.1
11	1.6	0
12	3	3.1
13	0	0
14	1.3	0
15	0	0
16	3.1	3.1
17	2.3	0
18	2.3	0
19	2.4	0
20	0	0
21	0	0
22	1.2	1.4
23	0	0
24	3	3.1
25	0	0.6
26	3.1	0
27	2.5	0
28	0	0
29	0	0
30	0.3	0
31	0	3
32	3	0
33	3	3.1
34	1.5	0
35	1.3	1.4
36	3	3.1
37	0	0
38	0	0
39	0	0
40	-0.3	0
41	-7.1	0
42	-0.3	15.1
43	15.1	15.1
44	-7.1	15.1
45	-7.1	15.1
46	-7.6	-7.6
47	0	0
48	3	3

<REG>

MODE PIN NO.	REC	PLAY
IC6001		
1	3.1	3.1
2	3	3
3	3	3
4	3	3
5	3	3
6	0	0
7	1.2	1.2
8	11.1	11.1
9	1	1
10	1.2	1.2
11	2.2	2.2
12	0	0
13	0	0
14	0	0
15	0	0
16	0	0
17	0.1	0.1
18	0	0
19	2.2	2.2
20	1	1
21	0	0
22	2.2	2.2
23	1	1
24	0.6	0.6
25	1	1
26	0.6	0.6
27	1	1
28	0.8	0.8
29	1	1
30	0.6	0.6
31	0.3	0.3
32	0.3	0.3
33	0.6	0.6
34	0	0
35	0	0
36	0.5	0.5
37	0.8	0.8
38	0	0
39	1	1
40	0	0
41	2.5	2.5
42	1.1	1.1
43	0	0
44	2.2	2.2
45	2.2	0
46	2.2	2.2
47	6.5	6.5
48	1	1
49	1	1
50	2.6	2.1
51	11.1	11.1
52	0	0
53	9.7	9.7
54	8.8	8.8
55	8	8
56	6	6
57	9.1	9.1
58	7.8	7.8
59	0	0
60	11.1	11.1
61	0	0
62	0	0
63	0.2	0.2
64	2	2
IC6801		
1	11.1	11.1
2	0	0
3	1.2	1.2
4	10.4	10.4
5	11.1	11.1
Q6101		
1	7.8	7.8
2	11.1	11.1
3	0	0
4	3.1	3.1
5	3.1	3.1
Q6102		
E	3.1	3.1
C	2.5	2.5
B	2.6	2.4
Q6201		
1	9	8.6
2	11.1	11.1
3	0	0
4	1.8	2.6
5	1.8	2.6
Q6301		
1	6	6
2	11.1	11.1
3	0	0
4	4.8	4.8
5	4.8	4.8
Q6302		
E	4.8	4.8
C	-0.6	-0.6
B	4.8	4.8

MODE PIN NO.	REC	PLAY
Q6303		
E	0	0
C	4.8	4.8
B	0	0
Q6401		
1	8.5	8.5
2	11.1	11.1
3	0	0
4	2.6	2.6
5	2.6	2.6
Q6501		
1	9.7	9.7
2	11.1	11.1
3	0	0
4	1.2	1.2
5	1.2	1.2
Q6601		
D	11.1	11.1
S	8	8
G	0	0
Q6602		
1	4.3	4.3
2	5.1	5.1
3	14.5	14.5
4	4.3	4.3
5	4.8	4.8
6	15.1	15.1
Q6603		
E	15.1	15.1
C	12	12
B	14.5	14.5
Q6604		
E	0	0
C	15.1	15.1
B	-1	-1
Q6605		
1	0	0
2	-7.6	-7.6
3	-14.5	-14.5
4	-7	-
5	-7.5	-7.5
6	-15	-15
Q6606		
E	-15	-15
C	-7.6	-7.6
B	-14.5	-15
Q6701		
D	11.1	11.1
S	11.1	11.1
G	0	0
Q6801		
1	3.2	3.2
2	3.2	3.2
3	0	0
4	10.9	10.9
5	11.1	11.1

<MDA>

MODE PIN NO.	REC	PLAY
IC1601		
1	0.4	0.4
2	0.5	0.5
3	0	0
4	0.5	0.5
5	1.5	1.5
6	1.5	1.5
7	1.5	1.5
8	1.5	1.5
9	1.6	1.6
10	1.5	1.5
11	2.8	2.8
12	1.2	1.2
13	1.6	1.6
14	1.5	1.5
15	1.5	1.5
16	1.5	1.5
17	1.6	1.6
18	3.1	3.1
19	0.7	0.7
20	0.4	0.4
21	1.3	1.3
22	1.3	1.3
23	11.1	11.1
24	2.6	2.6
25	0.7	0.7
26	1.3	1.3
27	0.7	0.7
28	1	1
29	1.2	1.2
30	1.2	1.2
31	1.2	1.2
32	0	0
33	1.2	1.2
34	1.5	1.5
35	0	0
36	0	0
37	0	0
38	0	0
39	4.6	4.6
40	-	-
41	-	-
42	1.5	1.5
43	1.5	1.5
44	14	14
45	2.3	2.3
46	12.5	12.5
47	0	0
48	0	0
49	3	3
50	3	3
51	0	0
52	1.2	1.2
53	0.2	0.2
54	1.5	1.5
55	0.7	0.7
56	0.9	0.9
IC1701		
1	-	-
2	1.5	1.5
3	1.5	1.5
4	0	0
5	1.4	1.4
6	1.5	1.5
7	-	-
8	4.6	4.6
IC1702		
1	-	-
2	1.5	1.5
3	-	-
4	0	0
5	-	-
6	1.5	1.5
7	-	-
8	4.6	4.6
Q1601		
1	0	0
2	0	0
3	4.6	4.6
4	0	0
5	4.6	4.6

<PRE/REC>

MODE PIN NO.	REC	PLAY
IC3501		
1	0	0
2	0.5	0.5
3	0	0
4	0	1.5
5	2.5	2.5
6	2.4	1.6
7	1.4	0
8	0	0
9	1.3	3.1
10	1.3	1.5
11	3.1	3.1
12	0	0
13	4.8	4.8
14	0	0
15	0	0
16	0	0
17	0	0
18	3.8	1.7
19	3.6	1.7
20	3.6	1.7
21	3.8	1.7
22	0	0
23	3.8	1.6
24	3.6	1.7
25	3.6	1.6
26	3.8	1.6
27	0	0
28	2.3	2.3
29	3.6	1.7
30	3.6	1.7
31	2.2	2.2
32	0	0
33	0	0
34	0	0
35	1.8	1.8
36	0.4	0.4
37	3.1	3.1
38	0	3
39	3.1	3.1
40	1.5	1.5
41	0	3
42	3	3
43	4.8	4.8
44	3.1	0
45	0	0
46	0	2
47	0	2
48	4.7	3.1
49	4.4	2.9
50	0.5	1.6
51	1.2	1.3
52	0.9	1.6
53	0	0
54	3.1	2.6
55	2.5	1.9
56	1.1	1.1
57	2.5	1.9
58	2.5	1.3
59	0	0
60	1.3	1.3
61	3.3	1.9
62	2.6	1.9
63	2.5	1.4
64	2.5	1.9
IC3502		
1	1.4	0
2	1.4	0
3	0	0
4	0.7	3.1
5	3.1	3.1

<JACK>

MODE PIN NO.	REC	PLAY
IC501		
1	2	2
2	2	2
3	2	2
4	0	0
5	2	2
6	2	2
7	1.5	1.5
8	4.8	4.8
IC502		
1	4.5	4.5
2	0	0
3	4.7	4.7
Q501		
E	0	0
C	4.3	4.3
B	-	-

<MONI BW>

MODE PIN NO.	EE
IC7601	
1	2.7
2	7.2
3	2.4
4	2.5
5	2.4
6	2.5
7	2.4
8	2.5
9	2.4
10	0
11	0
12	5.4
13	0.2
14	0.2
15	0.2
16	12
17	0
18	0
19	2.5
20	0.1
21	6.1
22	1.7
23	0
24	0
25	0
26	1.5
27	0
28	1.5
29	0
30	1.4
31	3.1
32	3.1
33	0.9
34	0
35	1.5
36	3.1
37	0
38	0
39	2.7
40	0
41	0
42	0
43	0
44	0.4
45	0
46	1.3
47	0
48	1.5
49	3.1
50	0
51	0
52	1.5
53	3.1
54	2.9
55	0
56	0
57	3
58	3
59	3.1
60	0
61	3.1
62	2.7
63	2.7
64	0
IC7602	
1	9
2	4.8
3	4.8
4	0
5	4.8
6	4.8
7	7.2
8	12
Q7601	
E	-10.4
C	0
B	-10
Q7602	
E	-9.4
C	-15
B	-10
Q7603	
E	-9.8
C	-0.2
B	-9.4
Q7604	
E	-9.8
C	-14.1
B	-10.5
Q7608	-
Q7609	-
Q7610	-
Q7611	
E	0
C	4.8
B	0

MODE PIN NO.	EE
Q7612	
E	4.8
C	1.1
B	4.8

<BL 2.5>

MODE PIN NO.	EE
Q7501	
E	0
C	4.3
B	0.4
Q7502	
E	0
C	4.3
B	0.4
Q7503	
E	4.4
C	4.3
B	0
Q7504	
E	0
C	0
B	3.0

<CCD>

MODE PIN NO.	EE
IC5001	
1	-7.2
2	-7.2
3	-0.3
4	-0.3
5	0
6	0
7	12
8	15.1
9	13.9
10	8
11	-7.6
12	1.6
13	1.3
14	8
Q5001	
E	11.2
C	15.1
B	12
Q5002	
E	0
C	8
B	0

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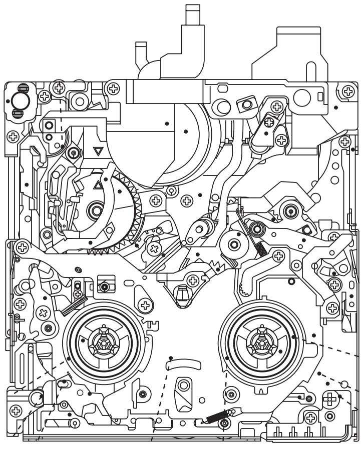
200304WPC

JVC

SERVICE MANUAL

MECHANISM ASSEMBLY

DVC MECHANISM
VHS-C MECHANISM
VHS MECHANISM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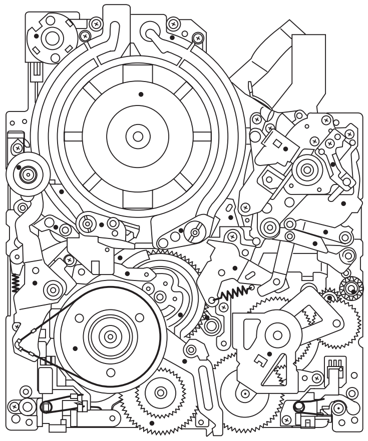
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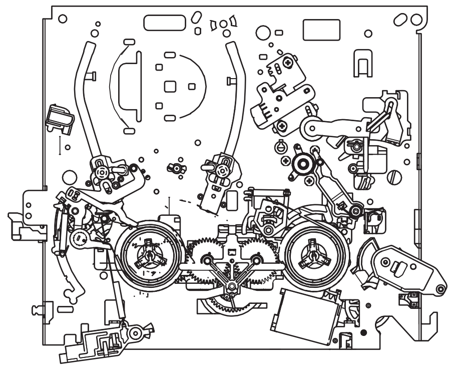
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2 SPECIFIC SERVICE INSTRUCTIONS 2-1
3 PARTS LIST 3-1

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No.86700
2003/04

SECTION 1
JIGS AND TOOLS

1.1 TOOLS REQUIRED FOR ADJUSTMENTS

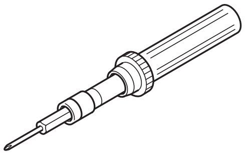
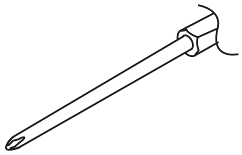
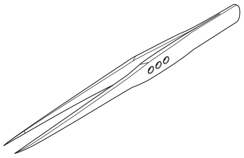
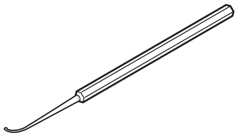
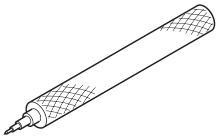
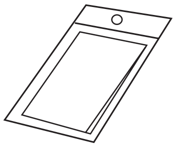
1. Torque driver YTU94088	2. Bit YTU94088-003
	
3. Tweezers P-895	4. Chip IC replacement jig PTS40844-2
	
5. Slit washer installation jig YTU94121A	6. Cleaning cloth KSMM-01
	

Fig.1-1-1

1. Torque driver

Be sure to use to fastening the mechanism and exterior parts because those parts must strictly be controlled for tightening torque.

Torque setting value of torque driver is limited. At the values over the maximum torque setting value, fasten a screw manually not to damage the screw thread.

2. Bit

This bit is slightly longer than those set in conventional torque drivers.

3. Tweezers

To be used for removing and installing parts and wires.

4. Chip IC replacement jig

To be used for replacement of part.

5. Slit washer installation jig

To be used to install slit washers.

6. Cleaning cloth

Recommended cleaning cloth to wipe down the video heads, mechanism (tape transport system), optical lens surface.

SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

2.1 DVC MECHANISM

2.1.1 Precautions

(1) When fastening parts, pay careful attention to the tightening torque of each screw. Unless otherwise specified, tighten a screw with the torque of 0.055 N•m (0.56 kgf•cm).
(2) Be sure to disconnect the set from the power supply before fastening and soldering parts.
(3) When disconnecting/connecting wires, be careful not to get them and their connectors damaged.
(4) When replacing parts, be very careful neither to damage other parts nor to fit wrong parts by mistake.

2.1.2 Notes on procedure for disassembly/assembly

The disassembling procedure table (Fig. 2-1-10 on page 2-4,a part of the table is shown below for reference)shows the procedure to disassemble/reassemble mechanism parts.
Carefully read the following explanation before starting actual disassembling/reassembling work. The item numbers(circled numbers)in the following explanation correspond to those appearing under respective columns of the table.

Example

NO.	PART NAME		FIG.	POINT	NOTE	REMARKS
[1]	CASSETTE HOUSING ASSY	T	Fig.2-4-3	3(S1),(L1a)-(L1e)	**NOTE 1 a,b,c,d**	ADJUSTMENT
[2]	UPPER BASE ASSY	T	Fig.2-4-4	(S2),(L2a),(L2b)	**NOTE 2**	
[3]	DRUM ASSY	T		(S3a),2(S3b)	**NOTE 3 a,b**	
[4]	REEL DISK ASSY(SUP)	T	Fig.2-4-5	(W4)	**NOTE 4 a**	
[5]	REEL DISK ASSY(TU)	T		(W5a),(W5b),(W5c)	**NOTE 5 a,b**	
[6]	REEL COVER ASSY	T		(W6),(S6a),2(S6b)	**NOTE 6**	ADJUSTMENT

↑ *1 ↑ *2 ↑ *3 ↑ *4 ↑ *5 ↑ *6 ↑ *7

*1 Numbers appearing in this column indicate the order to remove parts. When reassembling, follow these numbers in the reverse order. Circled numbers in this column correspond to those appearing in drawings of this section.
*2 This column shows part names corresponding to numbers in the left column.
*3 The symbol (T or B)appearing in this column shows the side which the objective part is mounted on.
T =the upper side, B =the lower side
*4 Symbols appearing in this column indicate drawing numbers.
*5 This column indicates parts and points such as screws, washers,springs,and others to be removed/fitted for disassembling/reassembling the mechanism. Besides such the parts, this column occasionally indicates working points.

P = Spring
W = Washer
S = Screw
* = Lock (L),soldering (SD),shield,connector (CN),etc.

Example

- Remove (W1)=Washer W1.
- Remove the solder at (SD1)=Point SD1.
- Disconnect A = Connector A.

*6 Numbers in this column represent the numbers of notes in the text.
(For parts that need phase adjustment after reassembling, refer to “MECHANISM ADJUSTMENTS”.)
*7 This column indicates required after-disassembling/-reassembling work such as phase adjustment or mechanism adjustment.

2.1.3 DISASSEMBLY AND ASSEMBLY OF MECHANISM ASSEMBLY

2.1.3.1 General statement

The mechanism should generally be disassembled/assembled in the C.IN mode (ASSEMBLY mode). (Refer to Fig. 2-1-1,2-1-2.) However, when the mechanism is removed from the main body, it is set in the STOP mode. Therefore, after the mechanism is removed from the main body, supply 3 V DC to the electrode on the top of the loading motor to enter the mechanism mode into the C IN mode compulsory.

<Mechanism assembly/Cassette housing assembly>

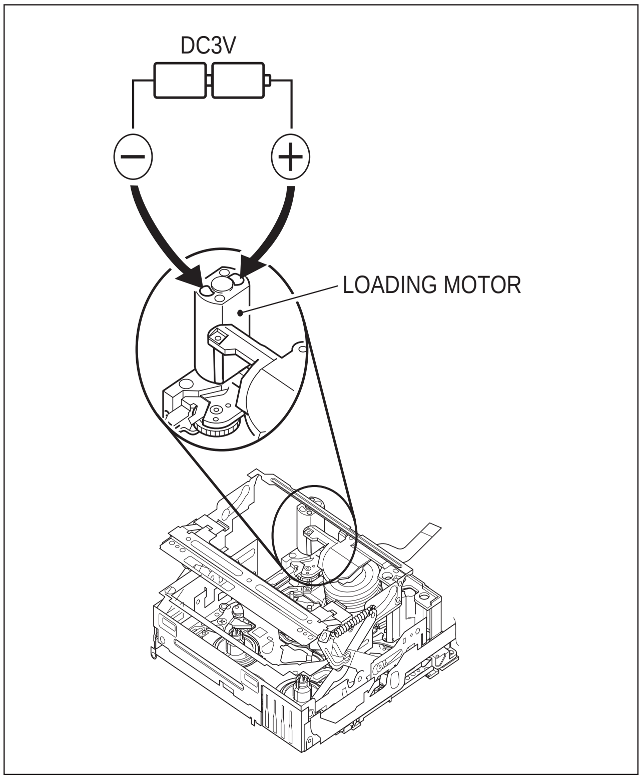


Fig.2-1-1

<Back side of the mechanism assembly>

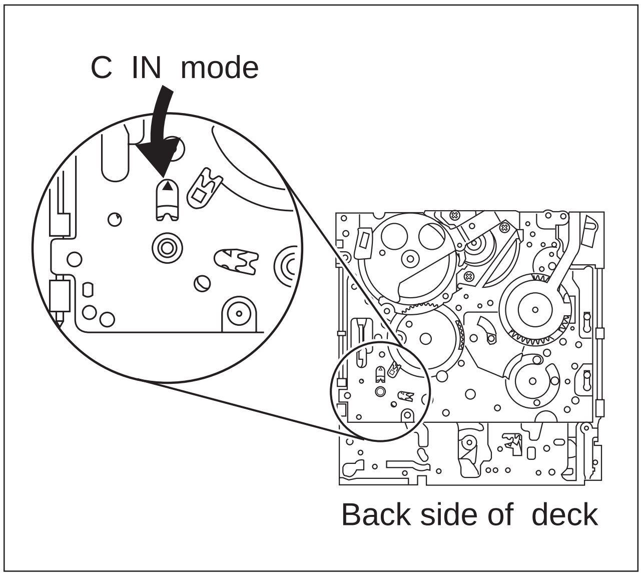


Fig.2-1-2

2.1.3.2 Explanation of mechanism mode

The mechanism mode of this model is classified into five modes as shown in Fig. 2-1-9. Each mechanism mode can be distinguished from others by the relative position of “△”, “○”, “⬭”, “□” marks on the sub cam gear to the inner or outer protrusion on the main deck.

Refer to Fig. 2-1-3 to 2-1-8 below.

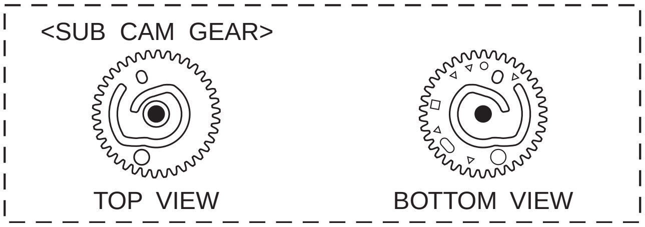


Fig.2-1-3

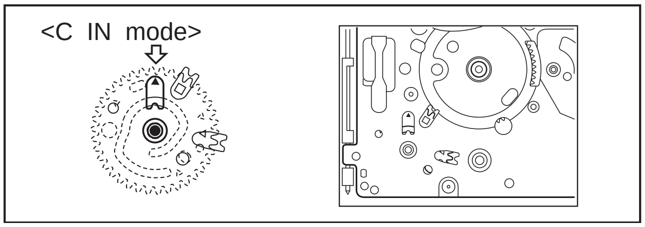


Fig.2-1-4

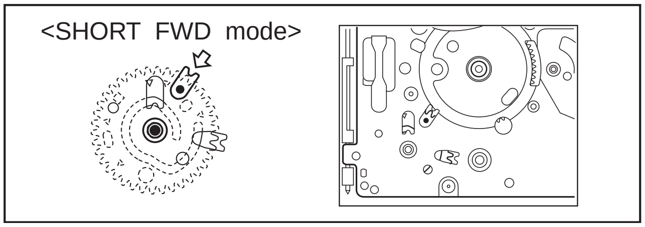


Fig.2-1-5

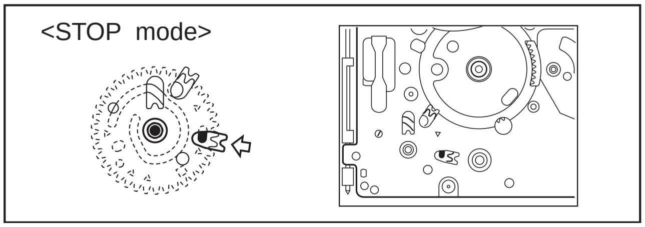


Fig.2-1-6

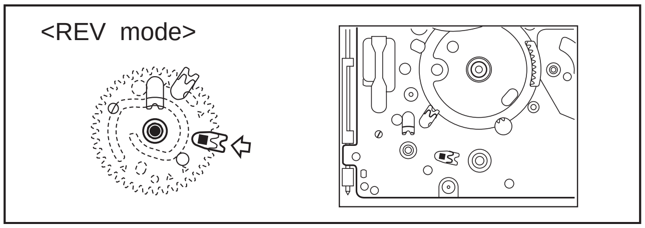


Fig.2-1-7

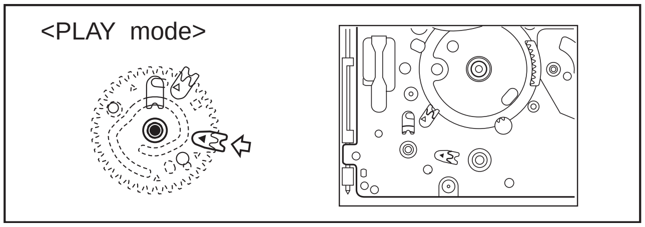


Fig.2-1-8

2.1.3.3 Mechanism timing chart

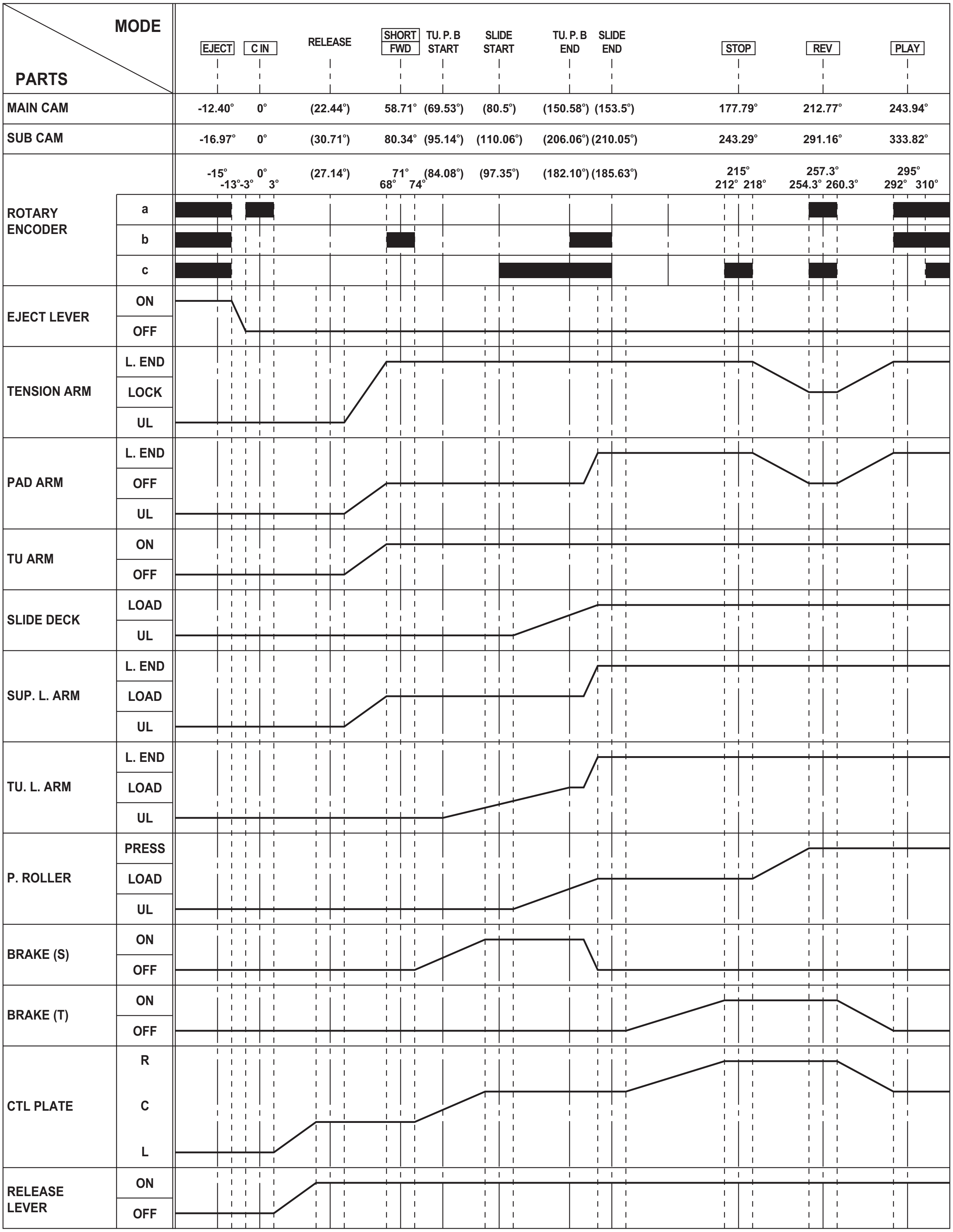

MODE
PARTS
EJECT
C IN
RELEASE
SHORT
FWD
TU. P. B
START
SLIDE
START
TU. P. B
END
SLIDE
END
STOP
REV
PLAY
MAIN CAM
-12.40°
0°
(22.44°)
58.71°
(69.53°)
(80.5°)
(150.58°)
(153.5°)
177.79°
212.77°
243.94°
SUB CAM
-16.97°
0°
(30.71°)
80.34°
(95.14°)
(110.06°)
(206.06°)
(210.05°)
243.29°
291.16°
333.82°
ROTARY
ENCODER
-15°
-13°
-3°
0°
3°
(27.14°)
71°
68°
74°
(84.08°)
(97.35°)
(182.10°)
(185.63°)
215°
212°
218°
257.3°
254.3°
260.3°
295°
292°
310°
a
b
c
EJECT LEVER
ON
OFF
TENSION ARM
L. END
LOCK
UL
PAD ARM
L. END
OFF
UL
TU ARM
ON
OFF
SLIDE DECK
LOAD
UL
SUP. L. ARM
L. END
LOAD
UL
TU. L. ARM
L. END
LOAD
UL
P. ROLLER
PRESS
LOAD
UL
BRAKE (S)
ON
OFF
BRAKE (T)
ON
OFF
CTL PLATE
R
C
L
RELEASE
LEVER
ON
OFF

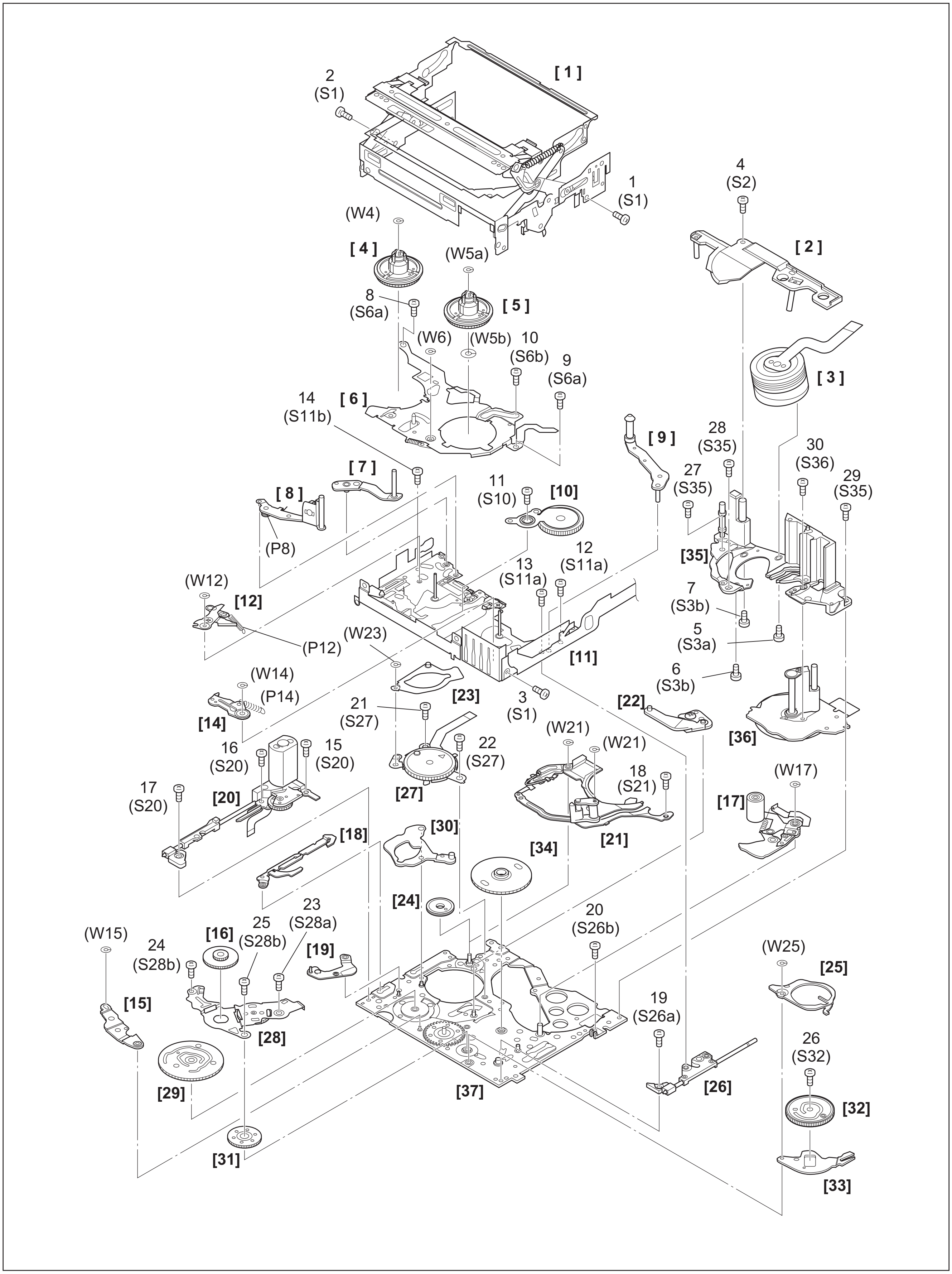
Fig.2-1-9

2.1.4 DISASSEMBLY PROCEDURE TABLE

MARK: # After assembly, perform adjustments.

NO.	PART NAME		FIG.	POINT	NOTE	REMARKS
[1]	CASSETTE HOUSING ASSY	T	Fig.2-1-14	3(S1),(L1a)-(L1e)	**NOTE 1 a,b,c,d**	ADJUSTMENT
[2]	UPPER BASE ASSY	T	Fig.2-1-15	(S2),(L2a),(L2b)	**NOTE 2**	
[3]	DRUM ASSY	T		(S3a),2(S3b)	**NOTE 3 a,b**	ADJUSTMENT
[4]	REEL DISK ASSY(SUP)	T	Fig.2-1-16	(W4)	**NOTE 4**	
[5]	REEL DISK ASSY(TU)	T		(W5a),(W5b)	**NOTE 5 a,b**	
[6]	REEL COVER ASSY	T		(W6),2(S6a),(S6b)	**NOTE 6**	
[7]	TENSION ARM ASSY	T	Fig.2-1-17	(L7)	**NOTE 7**	ADJUSTMENT / #
[8]	SLANT POLE ARM ASSY	T		(P8)	**NOTE 8**	ADJUSTMENT
[9]	TU ARM ASSY	T		(L9)	**NOTE 9**	ADJUSTMENT
[10]	SWING ARM ASSY	T		(S10)	**NOTE 10**	ADJUSTMENT
[11]	SLIDE DECK ASSY	T	Fig.2-1-18	2(S11a),(S11b),2(L11a), 2(L11b),(L11c)	**NOTE 11a,b**	ADJUSTMENT / #
[12]	PAD ARM ASSY	T	Fig.2-1-19	(P12),(L12),(W12)	**NOTE 12**	ADJUSTMENT / #
[13]	-	-		-	-	
[14]	TU BRAKE ASSY	T		(P14),(L14),(W14)	**NOTE 14**	ADJUSTMENT
[15]	TENSION CTL LEVER ASSY	T	Fig.2-1-20	(W15)	**NOTE 15**	ADJUSTMENT
[16]	CENTER GEAR	T		-	**NOTE 16**	
[17]	PINCH ROLLER ARM F. ASSY	T		(W17)	**NOTE 17**	ADJUSTMENT
[18]	TENSION CTL PLATE ASSY	T		-	**NOTE 18**	ADJUSTMENT
[19]	BRAKE CTL LEVER ASSY	T		-	**NOTE 19**	ADJUSTMENT
[20]	MOTOR BRACKET ASSY	T	Fig.2-1-21	3(S20),(L20a),2(L20b)	**NOTE 20**	ADJUSTMENT
[21]	GUIDE RAIL ASSY	T		2(W21),(S21),2(L21a),(L21b)	**NOTE 21**	ADJUSTMENT
[22]	SLIDE LEVER 2 ASSY	T		-	**NOTE 22**	ADJUSTMENT / #
[23]	LOADING PLATE ASSY	T		(W23)	**NOTE 23**	ADJUSTMENT
[24]	MODE GEAR	T		-	**NOTE 24**	
[25]	EJECT LEVER	T		(W25)	**NOTE 25**	ADJUSTMENT
[26]	BASE R ASSY	T	Fig.2-1-22	(S26a),(S26b),2(L26)	**NOTE 26**	ADJUSTMENT
[27]	ROTARY ENCODER	T		2(S27)	**NOTE 27**	PHASE ADJUSTMENT
[28]	GEAR COVER ASSY	T		(S28a),2(S28b)	-	
[29]	MAIN CAM ASSY	T		-	**NOTE 29**	PHASE ADJUSTMENT
[30]	SLIDE ARM ASSY	T	Fig.2-1-23	-	**NOTE 30**	ADJUSTMENT
[31]	CONNECT GEAR 2	T		-	**NOTE 31**	
[32]	SUB CAM ASSY	T		(S32)	**NOTE 32**	PHASE ADJUSTMENT
[33]	CONTROL ARM ASSY	T		-	**NOTE 33**	ADJUSTMENT
[34]	REEL GEAR 1	T		-	**NOTE 34**	
[35] / [36]	DRUM BASE ASSY/ CAPSTAN MOTOR	T	Fig.2-1-24	3(S35)	**NOTE 35a,b**	ADJUSTMENT
[36]	CAPSTAN MOTOR	T		(S36)	**NOTE 36**	ADJUSTMENT
[37]	MAIN DECK ASSY	T		-	-	

Fig.2-1-10


[1]
2
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1
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4
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(W4)
[4]
(W5a)
[5]
8
(S6a)
(W6)
(W5b)
10
(S6b)
9
(S6a)
[3]
14
(S11b)
[6]
[9]
28
(S35)
30
(S36)
27
(S35)
29
(S35)
[7]
[8]
11
(S10)
[10]
(P8)
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(S11a)
13
(S11a)
(W12)
[12]
7
(S3b)
5
(S3a)
(P12)
(W23)
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6
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(P14)
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(S26a)
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Fig.2-1-11

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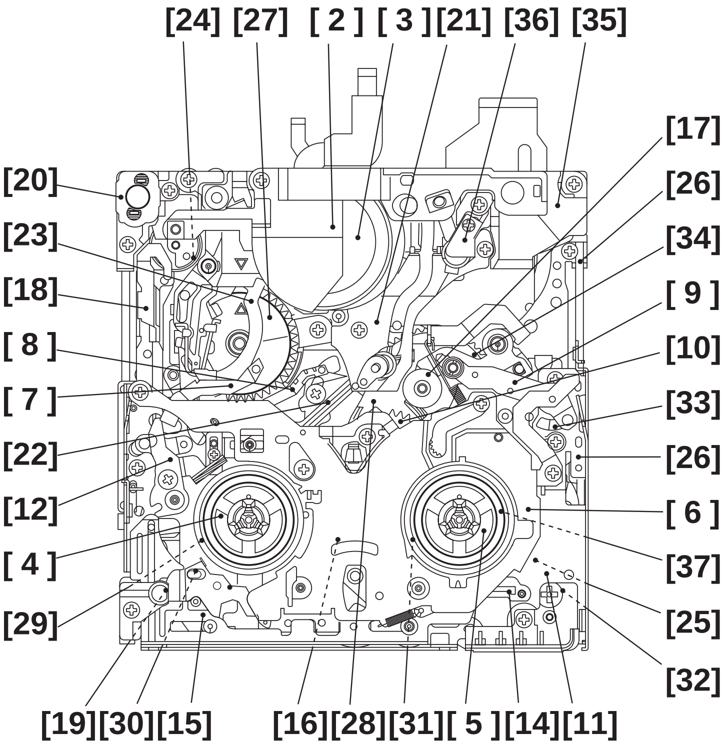
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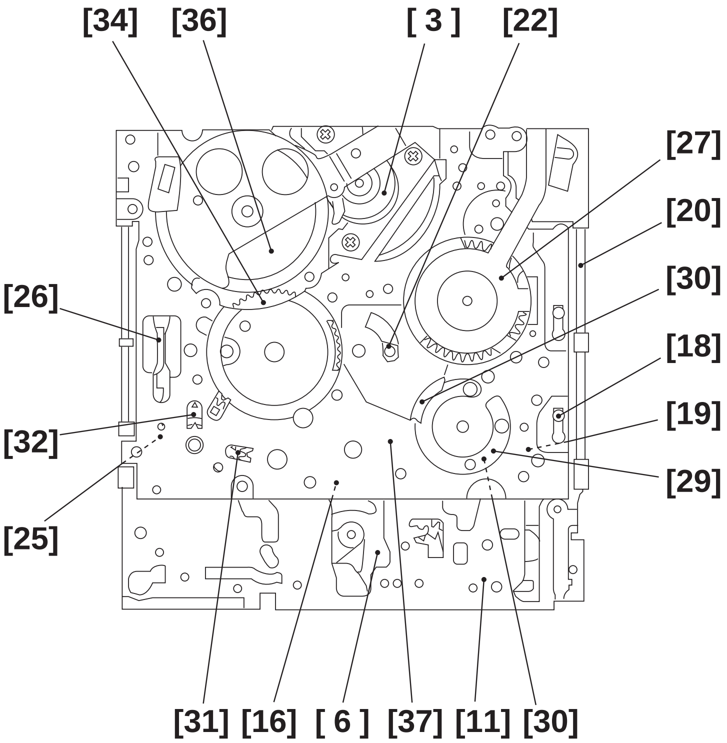
Fig.2-1-12

< BOTTOM VIEW >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[29]
[25]
[31]
[16]
[6]
[37]
[11]
[30]

Fig.2-1-13

2.1.5 DISASSEMBLY/ASSEMBLY

2.1.5.1 [1] CASSETTE HOUSING ASSY

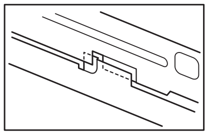
NOTE 1a:
Be careful not to damage any of the parts during work.

NOTE 1b:
Special care is required in mounting.

NOTE 1c:
When mounting, the CASSETTE HOUSING ASSY should be attached in the Eject status. Pay heed to the positions of the LOCK LEVER and EJECT LEVER during mounting.

NOTE 1d:
When mounting, be sure to locate the FPC in the gap.

NOTE 1b



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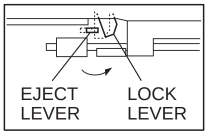
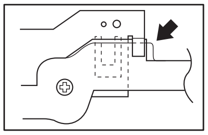

EJECT
LEVER
LOCK
LEVER

NOTE 1d



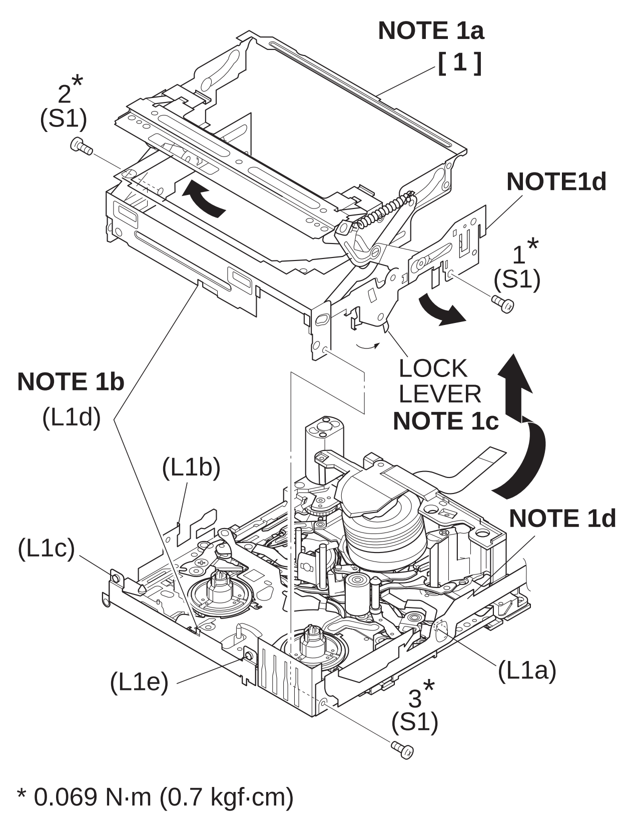

NOTE 1a
[1]
2*
(S1)
NOTE1d
1*
(S1)
LOCK
LEVER
NOTE 1c
NOTE 1b
(L1d)
(L1b)
NOTE 1d
(L1c)
(L1a)
(L1e)
3*
(S1)
* 0.069 N·m (0.7 kgf·cm)

Fig.2-1-14

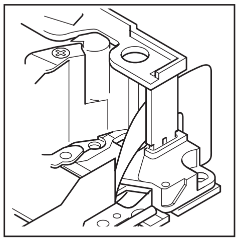
2.1.5.2 [2] UPPER BASE ASSY
[3] DRUM ASSY

NOTE 2:
When mounting, be sure to insert the FPC reinforcing sheet.

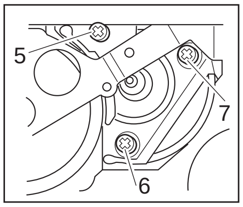
NOTE 3a:
Be mindful of scratches or damage during work.

NOTE 3b:
Be careful not to attach screws incorrectly.

NOTE 2



NOTE 3b



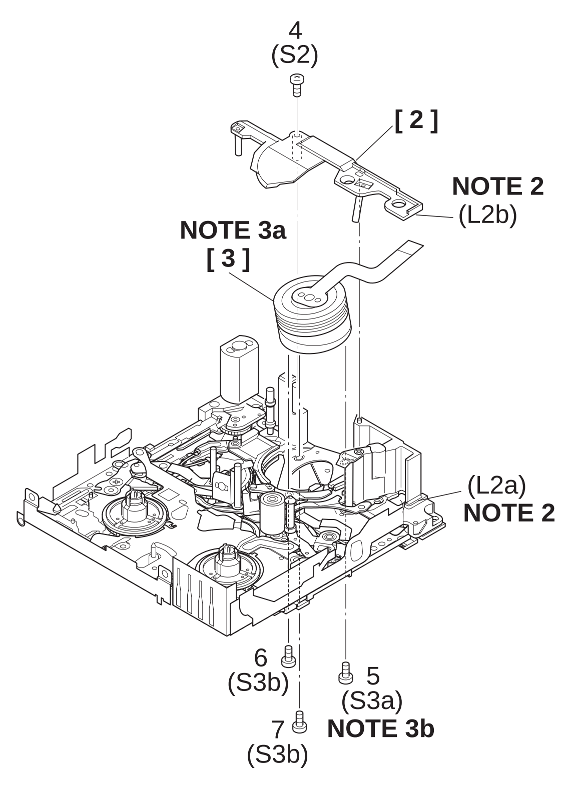

4
(S2)
[2]
NOTE 2
(L2b)
NOTE 3a
[3]
(L2a)
NOTE 2
6
(S3b)
5
(S3a)
NOTE 3b
7
(S3b)

Fig.2-1-15

2.1.5.3 [4] REEL DISK ASSY(SUP)
[5] REEL DISK ASSY(TU)
[6] REEL COVER ASSY

NOTE 4:

Be careful not to attach the REEL DISK wrongly. The Supply side can be identified by the white color at the center.

NOTE 5a:

Be careful not to attach the REEL DISK wrongly. The Take-up side can be identified by the black color at the center.

NOTE 5b

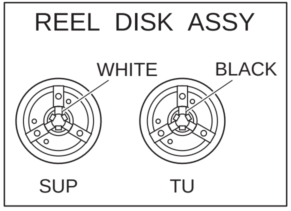
The washer is inserted under the REEL DISK.
Be carefull not to lose the washer.
Two washers are inserted under the REEL DISK in some products manufactured earlier, but one washer is inserted in the products manufactured recently and in the future.
See the parts list, and use the parts written in the parts list.

NOTE 6:

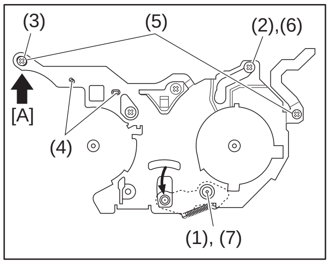
Perform the following steps for mounting.

(1) Align the hole with the pin.
(2) Attach the **[17]** PINCH ROLLER ARM FINAL ASSY by aligning the positions.
(3) Attach the SLIDE DECK ASSY (POINT[A]) by aligning the positions.
(4) Check that the parts below them are located in the correct positions.
(5) Tighten the 2 screws.
(6) Tighten the screw.
(7) Attach the 1 SLIT WASHER parts.

NOTE 4, 5



NOTE 6



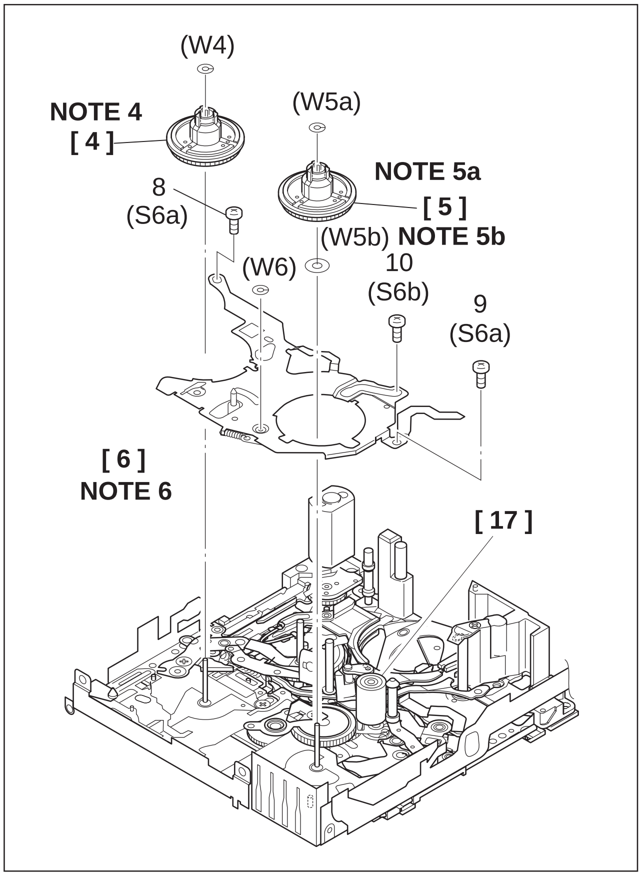


Fig.2-1-16

2.1.5.4 [7] TENSION ARM ASSY
[8] SLANT POLE ARM ASSY
[9] TU ARM ASSY
[10] SWING ARM ASSY

NOTE 7:

When detaching, remove the spring of the **[12]** PAD ARM ASSY in advance.
Pay attention to the attachment position.

NOTE 8:

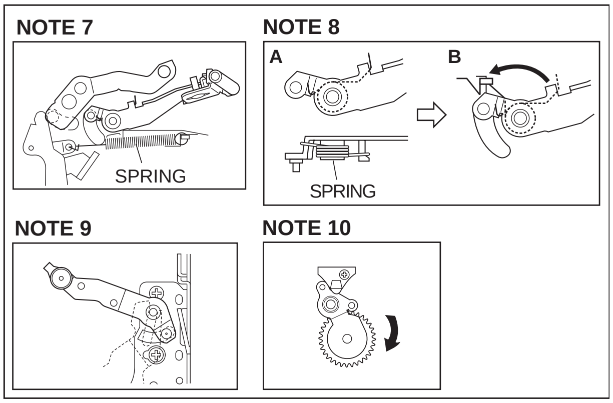
When mounting the SLANT POLE ARM ASSY, hook the spring onto the lug as in diagram A, and fit the combination onto the SLIDE DECK ASSY. After fitting, hook the spring onto the lug of the SLIDE DECK ASSY as in diagram B.
Be careful not to lose the spring.

NOTE 9:

Pay attention to the attachment position.

NOTE 10:

When detaching, remove the screw then remove the SWING ARM ASSY by pulling it up and turning it.


NOTE 7
SPRING
NOTE 8
A
B
SPRING
NOTE 9
NOTE 10

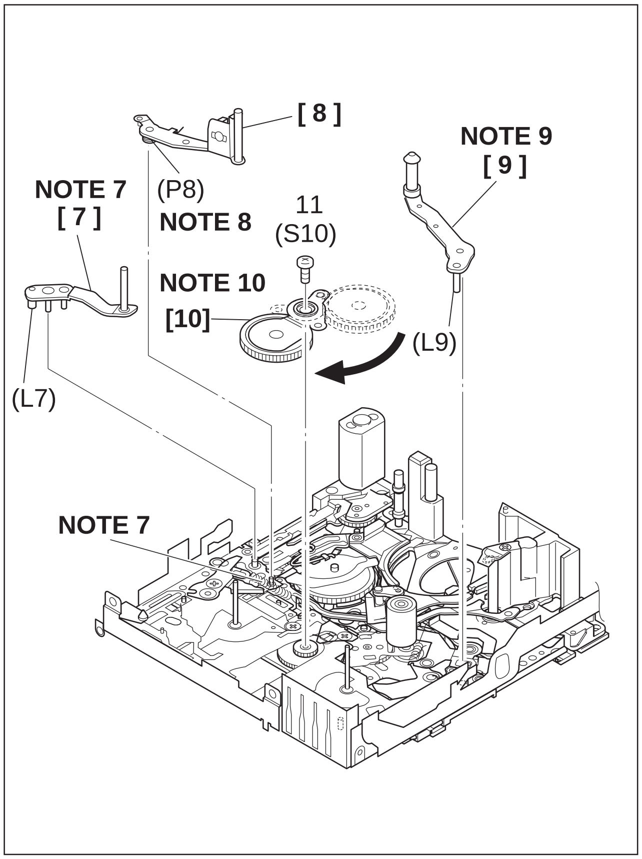

[8]
NOTE 9
[9]
NOTE 7
[7]
(P8)
NOTE 8
11
(S10)
NOTE 10
[10]
(L9)
(L7)
NOTE 7

Fig.2-1-17

2.1.5.5 [11] SLIDE DECK ASSY

NOTE 11a:

Each of the parts on the SLIDE DECK ASSY can be replaced separately.

When detaching the assembly, if there is no need to replace any of its parts, remove the SLIDE DECK ASSY as it is.

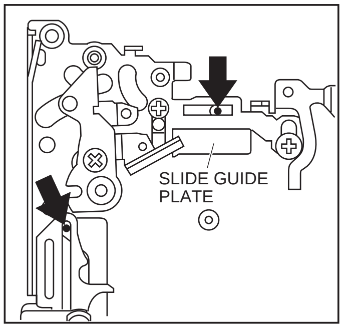
NOTE 11b:

When mounting, pay attention to the positions of the **[22]** SLIDE LEVER 2 ASSY studs and the **[19]** BRAKE CTL LEVER ASSY.

When mounting, position the CONTROL PLATE on the left side.

Pay attention to the position of the SLIDE GUIDE PLATE during mounting.

NOTE 11b


SLIDE GUIDE
PLATE

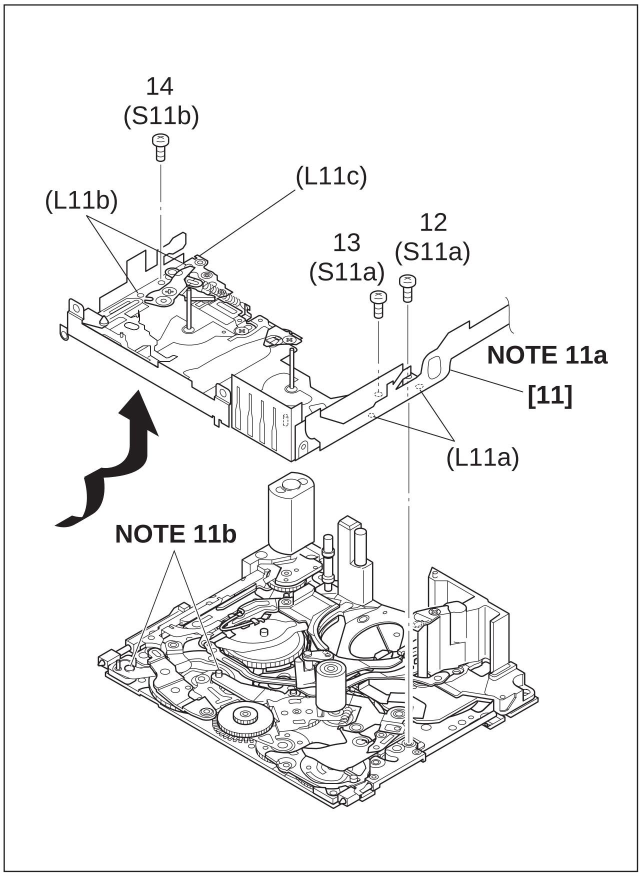

14
(S11b)
(L11c)
(L11b)
12
(S11a)
13
(S11a)
NOTE 11a
[11]
(L11a)
NOTE 11b

Fig.2-1-18

2.1.5.6 [12] PAD ARM ASSY
[13] -
[14] TU BRAKE ASSY

NOTE 12:

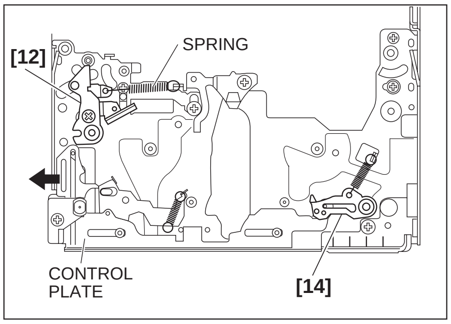
The spring may have already been disengaged when the **[8]** SLANT POLE ARM ASSY was removed.

NOTES 14:

When mounting, pay attention to the correct positioning.

Mount the CONTROL PLATE by moving it fully toward the left side.

NOTE 12,14


[12]
SPRING
CONTROL
PLATE
[14]

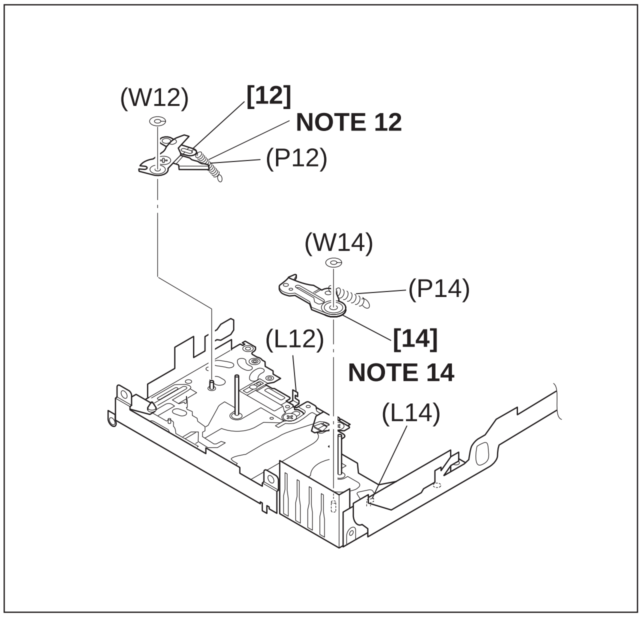

(W12)
[12]
NOTE 12
(P12)
(W14)
(P14)
(L12)
[14]
NOTE 14
(L14)

Fig.2-1-19

2.1.5.7 [15] TENSION CTL LEVER ASSY
[16] CENTER GEAR
[17] PINCH ROLLER ARM FINAL ASSY
[18] TENSION CTL PLATE ASSY
[19] BRAKE CTL LEVER ASSY

NOTES 15/16:

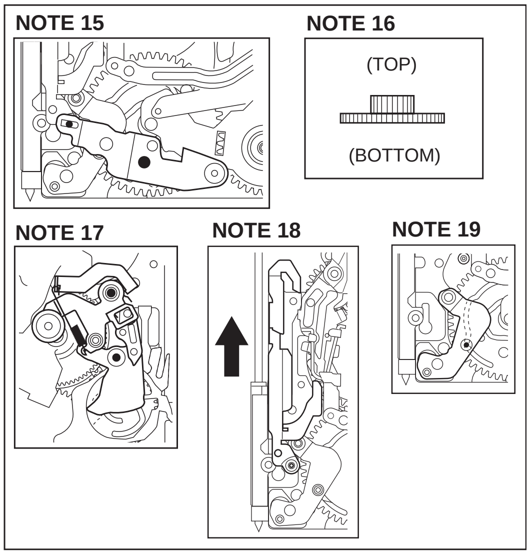
When mounting, pay attention to the correct positioning.

NOTE 17:

Take care against grease attachment during work.

NOTES 18/19:

When mounting, pay attention to the correct positioning.


NOTE 15
NOTE 16
(TOP)
(BOTTOM)
NOTE 17
NOTE 18
NOTE 19

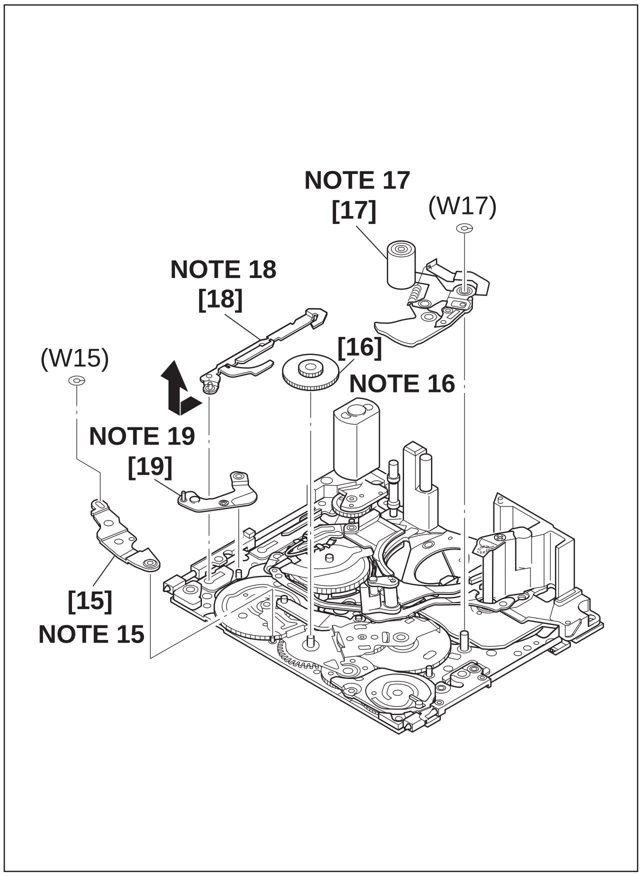

NOTE 17
[17]
(W17)
NOTE 18
[18]
[16]
NOTE 16
(W15)
NOTE 19
[19]
[15]
NOTE 15

Fig.2-1-20

2.1.5.8 [20] MOTOR BRACKET ASSY
[21] GUIDE RAIL ASSY
[22] SLIDE LEVER 2 ASSY
[23] LOADING PLATE ASSY
[24] MODE GEAR
[25] EJECT LEVER

NOTE 20:

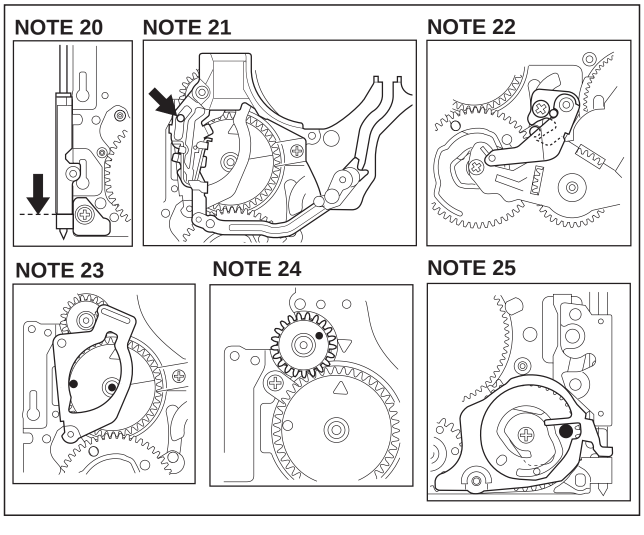
When mounting, pay attention to the positioning of the sliding parts.

NOTE 21:

When mounting, take care that no part is allowed to float or rattle.

NOTES 22/23/24/25:

When mounting, pay attention to the correct positioning.


NOTE 20
NOTE 21
NOTE 22
NOTE 23
NOTE 24
NOTE 25

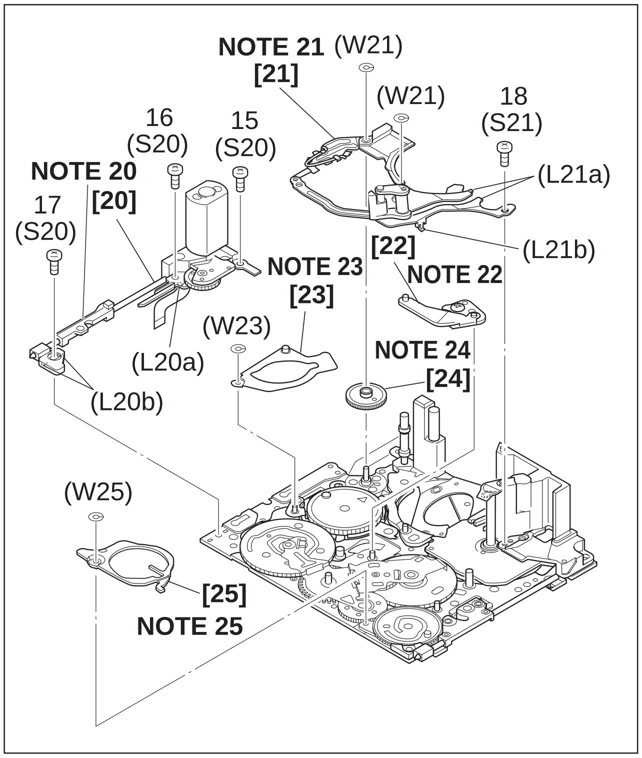

NOTE 21
[21]
(W21)
(W21)
18
(S21)
16
(S20)
15
(S20)
NOTE 20
[20]
(L21a)
17
(S20)
[22]
(L21b)
NOTE 23
[23]
NOTE 22
(W23)
(L20a)
NOTE 24
[24]
(L20b)
(W25)
[25]
NOTE 25

Fig.2-1-21

2.1.5.9 [26] BASE R ASSY
[27] ROTARY ENCODER
[28] GEAR COVER ASSY
[29] MAIN CAM ASSY

NOTE 26:

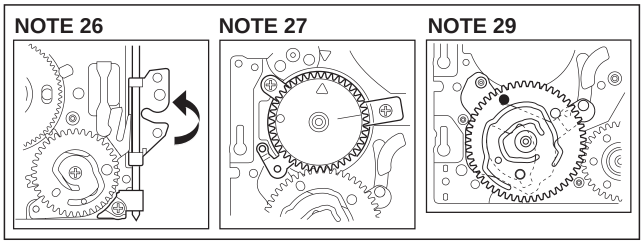
When mounting, fold the sliding part to the inner side.

NOTE 27:

When mounting, pay attention to the correct positioning and the FPC layout.

NOTE 29:

When mounting, pay attention to the correct positioning.


NOTE 26
NOTE 27
NOTE 29

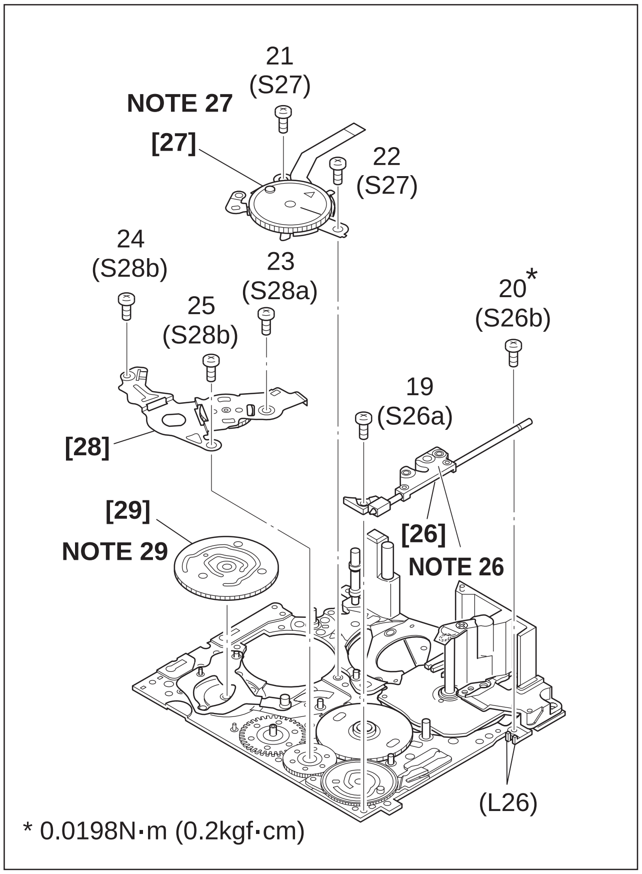

21
(S27)
NOTE 27
[27]
22
(S27)
24
(S28b)
23
(S28a)
25
(S28b)
20*
(S26b)
19
(S26a)
[28]
[29]
NOTE 29
[26]
NOTE 26
(L26)
* 0.0198N·m (0.2kgf·cm)

Fig.2-1-22

2.1.5.10 [30] SLIDE ARM ASSY
[31] CONNECT GEAR 2
[32] SUB CAM ASSY
[33] CONTROL ARM ASSY
[34] REEL GEAR 1

NOTE 30:

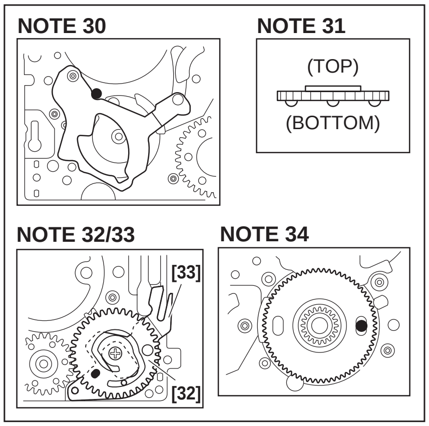
When mounting, pay attention to the correct positioning.

NOTE 31:

When mounting, pay attention to the position of the front and back.

NOTES 32/33/34:

When mounting, pay attention to the correct positioning.


NOTE 30
NOTE 31
(TOP)
(BOTTOM)
NOTE 32/33
[33]
[32]
NOTE 34

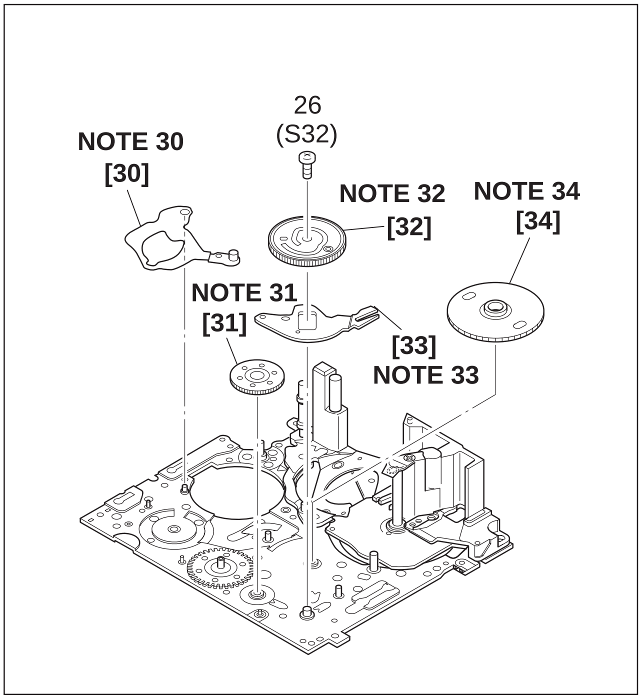

NOTE 30
[30]
26
(S32)
NOTE 32
[32]
NOTE 34
[34]
NOTE 31
[31]
[33]
NOTE 33

Fig.2-1-23

2.1.5.11 [35] DRUM BASE ASSY
[36] CAPSTAN MOTOR
[37] MAIN DECK ASSY

NOTES 35a/36:

Since [36]CAPSTAN MOTOR is attached to [35]DRUM BASE ASSY, remove [36]CAPSTAN MOTOR together with [35]DRUM BASE ASSY when removing [36]CAPSTAN MOTOR.

[36]CAPSTAN MOTOR should not be separated from [35]DRUM BASE ASSY except when replacing them.

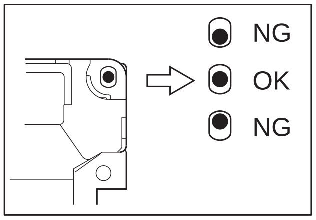
NOTE 35b:

It is very important to attach [35]DRUM BASE ASSY to the proper position.

Especially, improper engagement of [36]CAPSTAN MOTOR with [34]REEL GEAR 1 causes operational defection or abnormal sound. Therefore, confirm the attachment position before disassembly procedure.

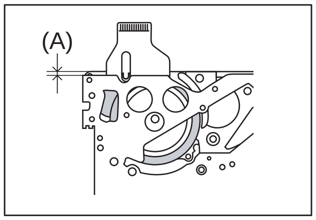
See the following figure as for the proper attachment position.

NOTE 35b



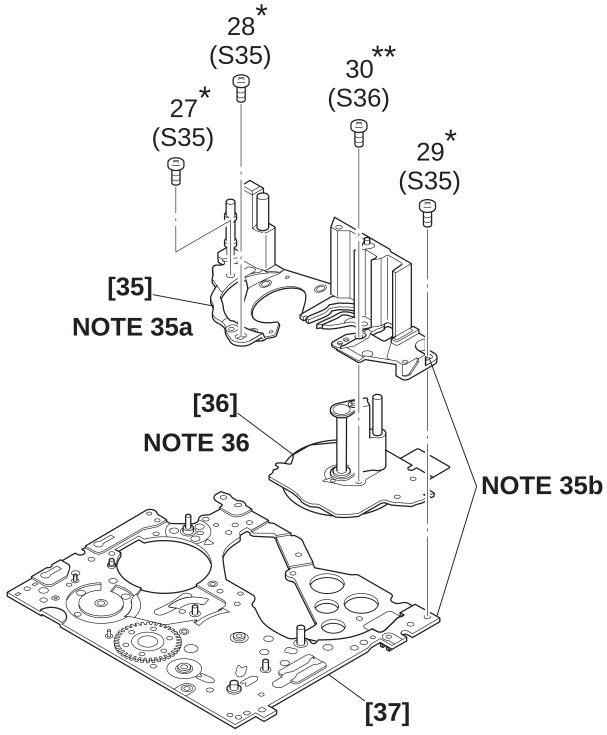
When [35]DRUM BASE ASSY is properly attached, the screw hole tends to be located at the center of the oval.

When the screw hole is located far from the center of the oval, operational defection or abnormal sound may occur.



Before removing [35]DRUM BASE ASSY, confirm the position of [35]DRUM BASE ASSY by seeing the length (A), as shown in the left figure.

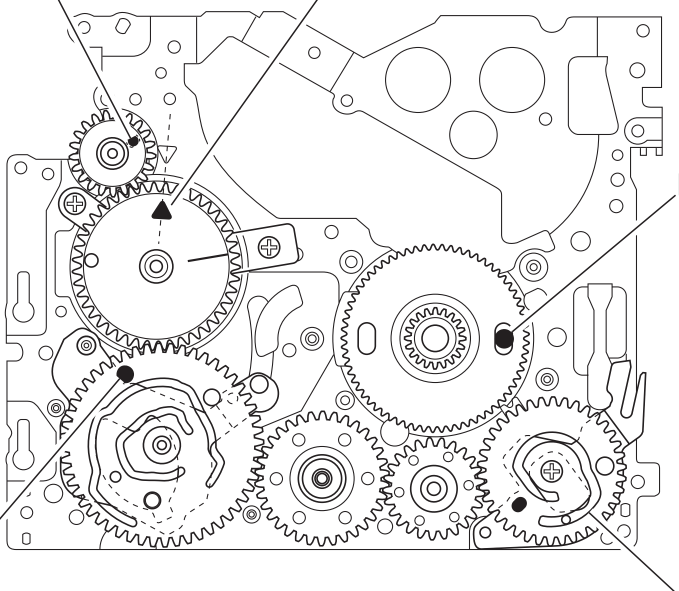
When reattaching [35]DRUM BASE ASSY, confirm the position to reattach [35]DRUM BASE ASSY by seeing the length (A). Be sure to reattach [35]DRUM BASE ASSY to the same position as it has been before the removing procedure.



* 0.078 N·m (0.8 kgf·cm)
** 0.039 N·m (0.4 kgf·cm)

Fig.2-1-24

2.1.6 CHECKUP AND ADJUSTMENT OF MECHANISM PHASE



[24]MODE GEAR

Align the MODE GEAR with the Main Deck Assembly hole.

Note:
The MODE GEAR may be displaced during the mechanism operation, however it can be checked from the rear and realigned during manual assembly.

[27]ROTARY ENCODER

Mount the ROTARY ENCODER by aligning its mark (△) and the mark (▽) of the Main Deck Assembly.

Note:
Be careful when handling the FPC during mounting.

[34]REEL GEAR 1

Align the REEL GEAR 1 with the Main Deck Assembly hole.

Note:
The REEL GEAR 1 may be displaced during mechanism operation, however this can be checked from the rear and realigned during manual assembly.

[29]MAIN CAM ASSY/[30]SLIDE ARM ASSY

When mounting the SLIDE ARM ASSY align it with the Main Deck Assembly and MAIN CAM ASSY holes.

Note:
During the mounting procedure, make sure that the[32] SUB CAM ASSY is in the correct mounting position.

[32]SUB CAM ASSY/[33] CONTROL ARM ASSY

Mount the SUB CAM ASSY hole to align with the CONTROL ARM ASSY and Main Deck Assembly holes and then tighten them all together with a screw.

Note:
When mounting it, make sure that the[29]MAIN CAM ASSY is in the correct mounting position.

Fig.2-1-25

2.1.7 MECHANISM ADJUSTMENTS

2.1.7.1 Adjustment of the slide guide plate

Use Fig. 2-1-26 as the reference unless otherwise specified.

(1) Set the PLAY mode. See Fig. 2-1-8.

(2) Loosen the screws (**A**, **B**).

(3) With the Main Deck and Slide Deck Assemblies pushed into the unit, tighten the screws (**A**, **B**) while applying pressure to the stud (shaft) on the Slide Guide plate.
The pressure applied should be enough to enable utilization of the rebounding force of the springs.
The tightening torque should be 0.069 N•m (0.7 kgf•cm).

(4) Check the operation.
Repeat unloading and loading several times and make sure that these operations can be performed smoothly without producing rattles.

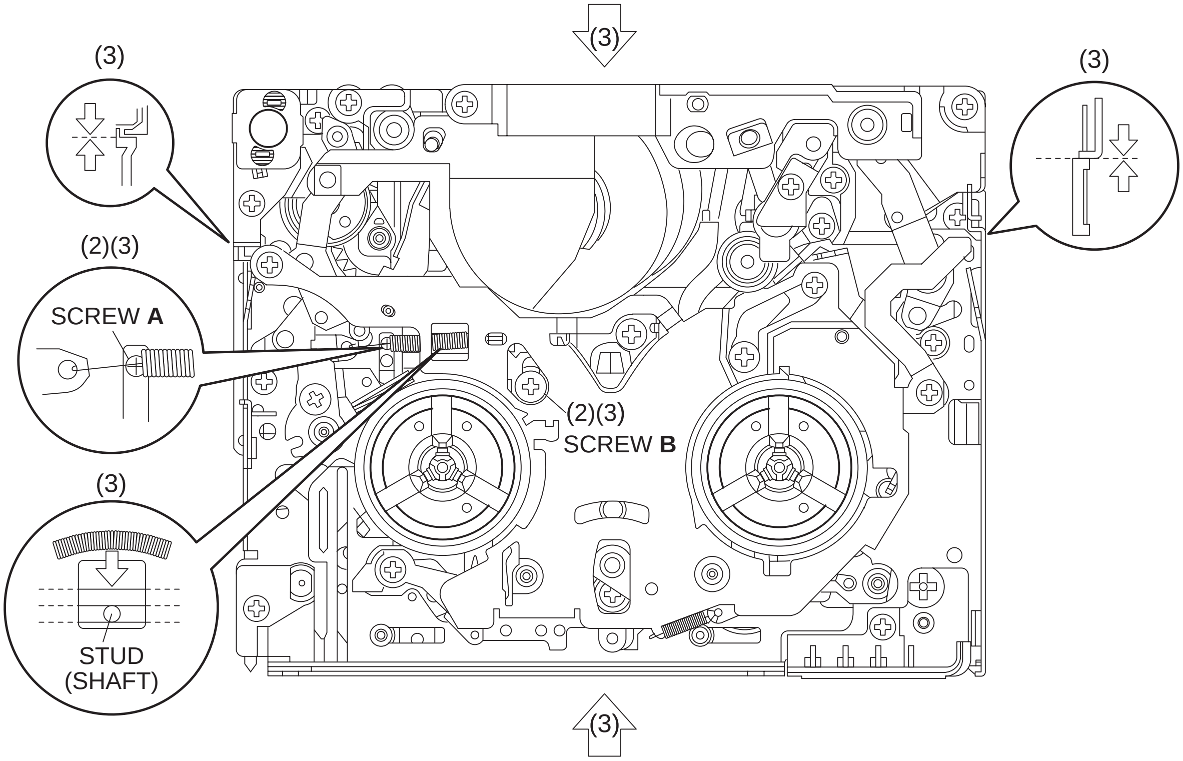


Fig.2-1-26

2.1.7.2 Adjustment of the Tension Arm and Pad Arm Assemblies

Use Fig. 2-1-27 as the reference unless otherwise specified.

(1) Set the PLAY mode.
See Fig. 2-1-8.

(2) Loosen the screw **A**.

(3) With the take-up side at the bottom, align the extreme end of the Tension Arm Assembly with the crossed grooves on the screw **B** that retains the Loading Motor Assembly and then tighten the screw **A**.
The tightening torque should be 0.069 N•m (0.7 kgf•cm).

(4) Check the operation.
Repeat unloading and loading several times and make sure that the Tension Arm Assembly is located within the normal range.

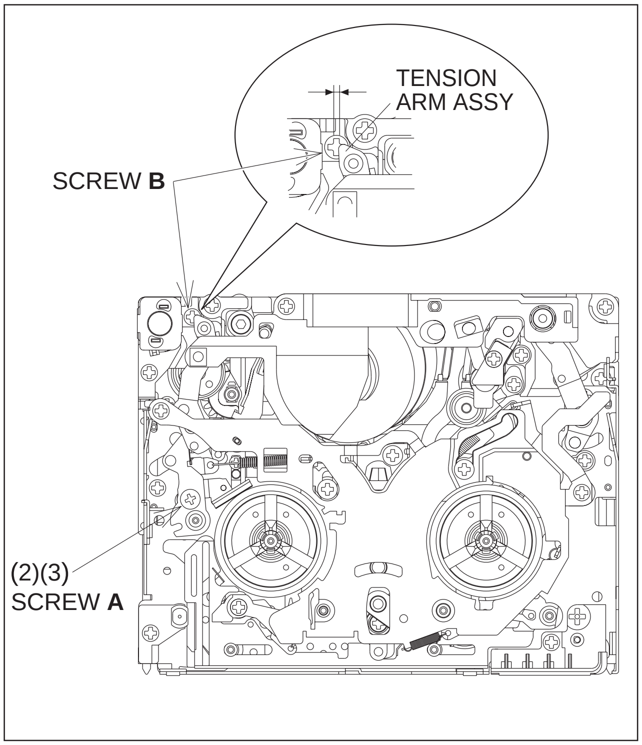


Fig.2-1-27

2.1.7.3 Adjustment of the Slide Lever 2

Use Fig. 2-1-28 as the reference unless otherwise specified.

(1) Set the C IN mode.
See Fig. 2-1-4.

(2) Loosen the screw **A**.

(3) Set the Main Deck and Slide Deck Assemblies apart so that they do not rattle, then tighten the screw **A** by screwing it fully toward the Drum Assembly.
The tightening torque should be 0.069 N•m (0.7 kgf•cm).

(4) Check the operation.
Repeat unloading and loading several times and make sure that these operations can be performed smoothly without producing rattles.

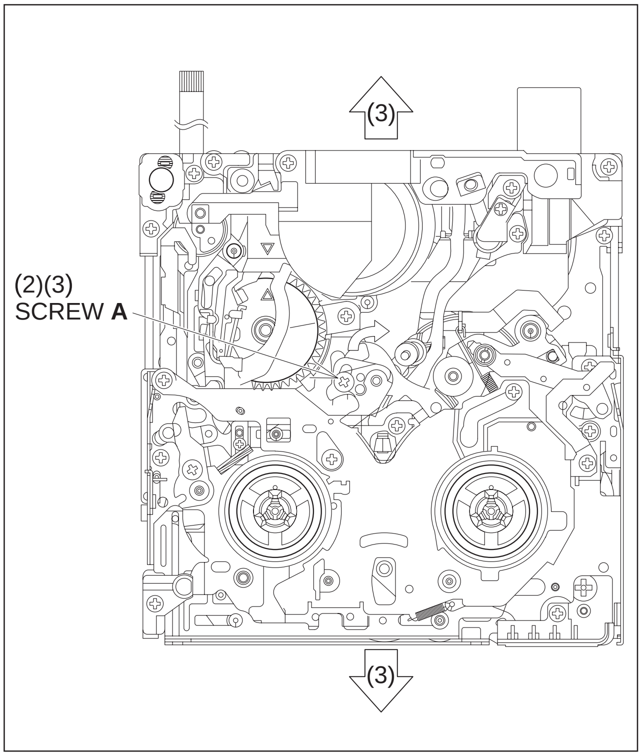


Fig.2-1-28

2.1.8 SERVICE NOTE

Use the following chart to manage mechanism parts that are removed for disassembling the mechanism.

Fig.2-1-14

[1] CASSETTE HOUSING ASSY

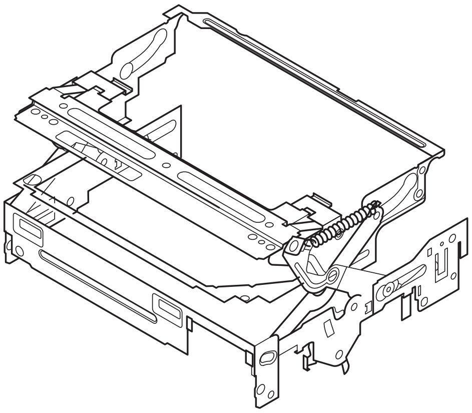


Fig.2-1-15

[2] UPPER BASE ASSY

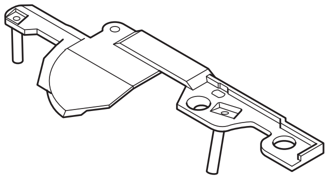


Fig.2-1-15

[3] DRUM ASSY

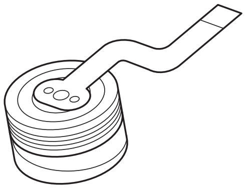
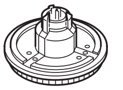
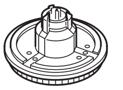


Fig.2-1-16

[4] REEL DISK ASSY(SUP)



[5] REEL DISK ASSY(TU)



[6] REEL COVER ASSY

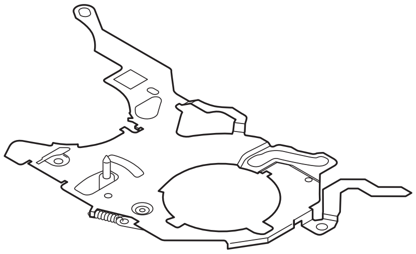
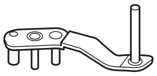
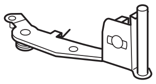


Fig.2-1-17

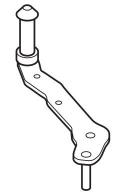
[7] TENSION ARM ASSY



[8] SLANT POLE ARM ASSY



[9] TU ARM ASSY



[10] SWING ARM ASSY

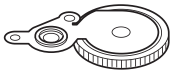


Fig.2-1-18

[11] SLIDE DECK ASSY

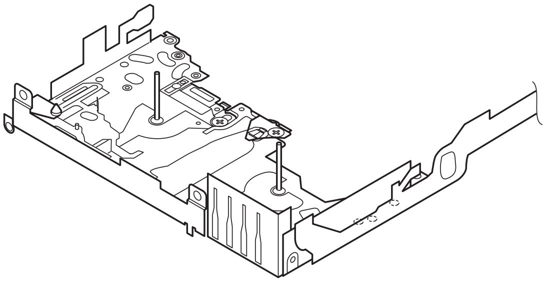
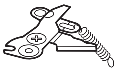


Fig.2-1-19

[12] PAD ARM ASSY



[13]

—

[14] TU BRAKE ASSY

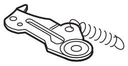
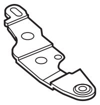


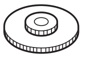
Fig.2-1-29

Fig.2-1-20

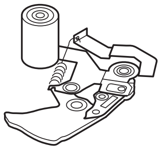
[15] TENSION CTL LEVER ASSY



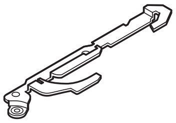
[16] CENTER GEAR



[17] PINCH ROLLER ARM F. ASSY



[18] TENSION CTL PLATE ASSY



[19] BRAKE CTL LEVER ASSY

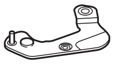
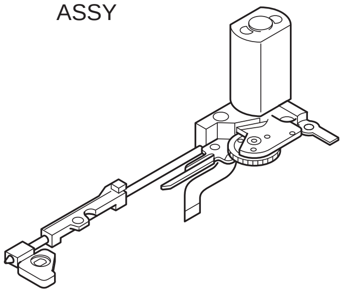
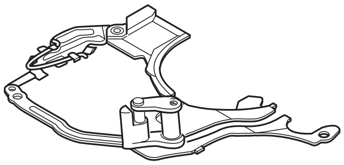


Fig.2-1-21

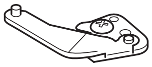
[20] MOTOR BRACKET ASSY



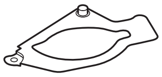
[21] GUIDE RAIL ASSY



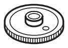
[22] SLIDE LEVER 2 ASSY



[23] LOADING PLATE ASSY



[24] MODE GEAR



[25] EJECT LEVER

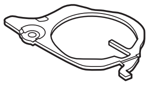
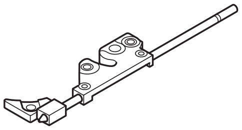
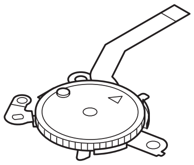


Fig.2-1-22

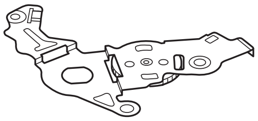
[26] BASE R ASSY



[27] ROTARY ENCODER



[28] GEAR COVER ASSY



[29] MAIN CAM ASSY

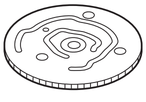
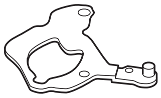
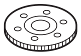


Fig.2-1-23

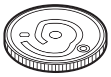
[30] SLIDE ARM ASSY



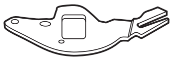
[31] CONNECT GEAR 2



[32] SUB CAM ASSY



[33] CONTROL ARM ASSY



[34] REEL GEAR 1

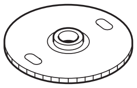
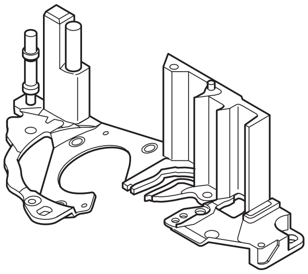
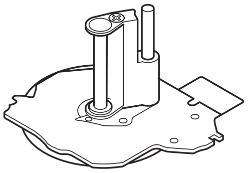


Fig.2-1-24

[35] DRUM BASE ASSY



[36] CAPSTAN MOTOR



[37] MAIN DECK ASSY

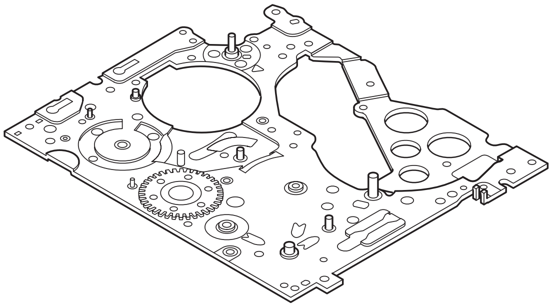


Fig.2-1-30

2.1.9 SERVICE NOTE

Use the following chart to manage screws.

Symbol No.	[1]			[2]	[3]			[6]			[10]	[11]			[20]			[21]	[22]	
Removing order of screw	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Place to stick screw																				
Reference drawing (Fig. No.2-1-**)	14			15				16			17	18			21				22	
Screw tightening torque	Ⅰ			Ⅱ																Ⅲ

Symbol No.	[27]			[28]		[32]	[35]			[36]
Removing order of screw	21	22	23	24	25	26	27	28	29	30
Place to stick screw										
Reference drawing (Fig. No.2-1-**)	22					23	24			
Screw tightening torque	Ⅱ						Ⅳ			Ⅴ

<NOTE>

・Pay careful attention to tightening torque for each screw.

Ⅰ : 0.069N・m(0.7kgf・cm)

Ⅱ : 0.055N・m(0.56kgf・cm)

Ⅲ : 0.0198N・m(0.2kgf・cm)

Ⅳ : 0.078N・m(0.8kgf・cm)

Ⅴ : 0.039N・m(0.4kgf・cm)

Fig.2-1-31

2.1.10 REMARKS

2.1.10.1 Cleaning

(1) For cleaning of the upper drum (particularly video heads), use fine-woven cotton cloth with alcohol soaks through. Do not move the cloth but turn the upper drum counterclockwise.

NOTE:
Make sure not to move the cloth in the vertical direction to the video head, since it may cause damage of the video heads.

(2) For cleaning of parts of the tape transport system except the upper drum, use fine-woven cotton cloth or cotton swab soaked alcohol.

(3) After cleaning, confirm that the cleaned parts are completely dry before loading the deck with cassette tape.

2.1.10.2 Applying oil and grease

(1) Periodical oiling and greasing are not required but should be done to new parts when replacing. If oil and grease on the other parts of the other party are old and dirty, wipe them clean and apply new oil or grease.

(2) For parts and points to apply oil and grease, refer to the exploded view of the 3.1 DVC MECHANISM ASSEMBLY.
Fig.2-1-32 specifies oil and grease to be used.

(3) When oiling, clean the objective parts with alcohol first and apply one or two drop(s) of oil. Too much oiling causes rotary parts to slip because of oil leakage.

Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	YTU94027	BB
Grease (HANARL)	RX-410R	CC

specifies oil and grease to be used

Fig.2-1-32

2.2 VHS-C MECHANISM

2.2.1 Precautions

(1) When fastening parts, pay careful attention to the tightening torque of each screw. Unless otherwise specified, tighten a screw with the torque of 0.216 N•m (2.2 kgf•cm). Torque setting value of torque driver is limited. At the values over the maximum torque setting value, fasten a screw manually not to damage the screw thread.
(2) Be sure to disconnect the set from the power supply before fastening and soldering parts.
(3) When disconnecting/connecting wires, be careful not to get them and their connectors damaged.
(4) When replacing parts, be very careful neither to damage other parts nor to fit wrong parts by mistake.

Example

STEP/LOC. No.	PART NAME		FIG.	REMOVAL	INSTALLATION
				POINT	ADJUSTMENT CONDITION NOTE
[1]	ROLLER BASE ASSEMBLY	T	M1	(S1)	–
[2]	TENSION ARM ASSEMBLY	T	M1	(P1), (W1a)	–
[3]	REEL DISC (SUP)	T	M1	(W1a), (W1b)	_
↑ *1	↑ *2	↑ *3	↑ *4	↑ *5	↑ *6

2.2.2 How to read the disassembly and assembly

*1 Order of steps in Procedure
When reassembling, perform the step(s) in the reverse order. These numbers are also used as the identification (location) No. of parts Figures.
*2 Part to Name be removed or installed.
*3 Location of part.

T = The Upper side
B = The Lower side

*4 Fig. No. showing Procedure or Part Location.
M = Mechanism
*5 Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped or unsoldered.

P = Spring
W = Washer
S = Screw
* = Unhook, unlock, release, unplug or unsolder.

Example

- Remove (W1)=Washer W1.
- Remove the solder at (SD1)=Point SD1.
- Disconnect A = Connector A.

*6 Adjustment information for installation.
(+) = Refer to Exploded Views for Lubrication information.

2.2.3 DISASSEMBLY/ASSEMBLY PROCEDRURE TABLE

This procedure starts with the condition that the cabinet parts and deck parts. Also, all the following procedures for adjustment and parts replacement should be performed in STOP mode. When reassembling, perform the step(s) in the reverse order.

STEP/LOC. No.	PART NAME		FIG.	REMOVAL	INSTALLATION
				POINT	ADJUSTMENT CONDITION NOTE
[1]	ROLLER BASE ASSY	T	M1	(1)	–
[2]	TENSION ARM ASSY	T	M1	(P1), (W1a)	–
[3]	REEL DISC	T	M1	(W1a), (W1b)	–
[4]	SLANT ARM ASSY	T	M1	(W1a)	–
[5]	CANCEL LEVER ASSY	T	M2	(W2)	–
[6]	EJECT LEVER ASSY	T	M2	(W2)	–
[7]	CASSETTE GUIDE (LEFT)	T	M2	(2)	–
[8]	SUPPLY CLUTCH ASSY	T	M2	(W2)	–
[9]	WHEEL GEAR	T	M2	(W2)	See, Adjustment procedure for Section 2.2.5
[10]	ROTARY ENCODER	B	M3	4(S3a)	The function of this part varies according to the ASSY (VHS/SVHS) which this part is rporated in. (Refer to fig. 2-2-6)
[11]	TIMING BELT	B	M3	–	–
[12]	CENTER PULLEY UNIT	T/B	M3	2(S3a)	–
[13]	CASSETTE GUIDE (R) ASSY	T	M3	(S3b), (P3)	(Only use SVHS model)
[14]	TAKE UP GEAR	T	M3	(W3a)	–
[15]	BRAKE SUB GEAR	T	M3	(W3a)	–
[16]	PINCH ROLLER ARM ASSY	T	M3	(W3b)	–
[17]	TAKE UP GUIDE ARM ASSY	T	M3	(W3a)	–
[18]	LINK ARM ASSY	T	M4	(W4)	–
[19]	LED GUIDE	T	M4	(S4a)	–
[20]	A/C HEAD UNIT	T	M4	2(S4b)	–
[21]	SLANT POLE BASE ASSY	T	M5	(S5a)	–
[22]	CAPSTAN MOTOR	T	M5	3(S5a)	–
[23]	MOTOR BASE	T	M5	2(S5b), (S5c)	–
[24]	BRUSH	B	M6	(S6a)	–
[25]	DRUM FINAL ASSY	T/B	M6	2(S6b), 2(S6c) *CATCHER	–
[26]	GUIDE RAIL	T	M6	7(S6d), 8(S6d)	(Refer to part list.)
[27]	POLE BASE (S)ASSY	T	M6	–	–
[28]	POLE BASE (T)ASSY	T	M6	–	–
[29]	COVER PLATE	T	M7	–	–
[30]	DRIVE LEVER ASSY	T	M7	–	–
[31]	MOTOR BRACKET ASSY	T	M7	3(S7)	–
[32]	CONTROL CAM	T	M8	(W8a)	See, Adjustment procedure for Section 2.2.5
[33]	LINK LEVER	T	M8	–	See, Adjustment procedure for Section 2.2.5
[34]	MIDDLE GEAR	T	M8	–	–
[35]	LOADING GEAR(T) ASSY	T	M8	(W8b)	See, Adjustment procedure for Section 2.2.5
[36]	LOADING GEAR(S) ASSY	T	M8	(W8b)	–
[37]	LOADING RING ASSY	T	M8	4(S8)	See, Adjustment procedure for Section 2.2.5

Fig.2-2-1

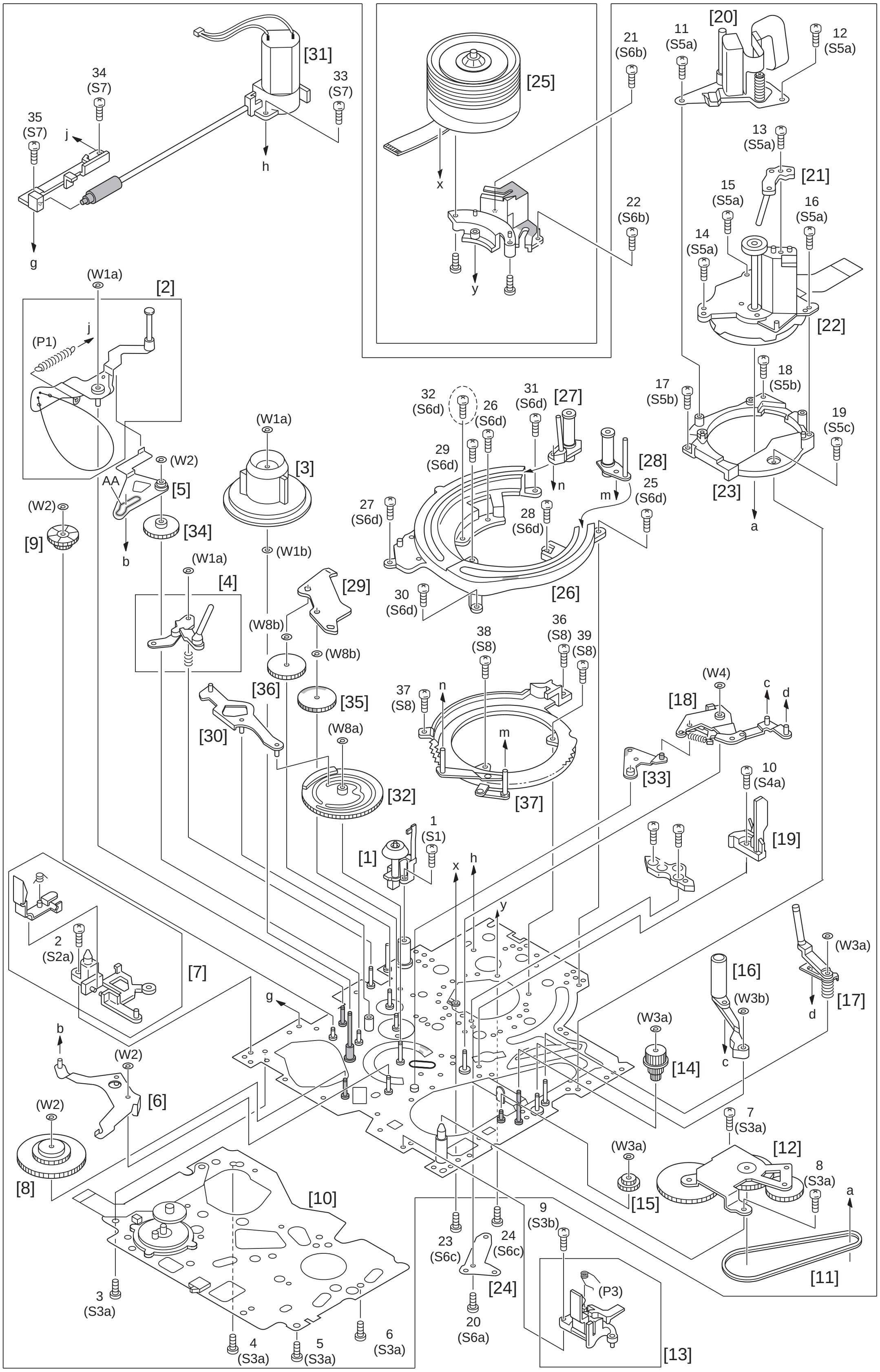

[31]
34
(S7)
33
(S7)
35
(S7)
j
h
g
[25]
x
y
21
(S6b)
22
(S6b)
11
(S5a)
[20]
12
(S5a)
13
(S5a)
[21]
15
(S5a)
16
(S5a)
14
(S5a)
[22]
17
(S5b)
18
(S5b)
19
(S5c)
[23]
a
(W1a)
[2]
(P1)
j
(W2)
AA
[5]
(W2)
[9]
[34]
b
(W1a)
[3]
(W1b)
(W1a)
[4]
[29]
(W8b)
(W8b)
[36]
[35]
[30]
(W8a)
[32]
32
(S6d)
26
(S6d)
31
(S6d)
[27]
29
(S6d)
n
[28]
m
25
(S6d)
27
(S6d)
28
(S6d)
[26]
30
(S6d)
38
(S8)
36
(S8)
39
(S8)
37
(S8)
n
m
[37]
(W4)
c
d
[18]
[33]
10
(S4a)
[19]
1
(S1)
[1]
x
h
y
2
(S2a)
[7]
g
b
(W2)
[6]
(W2)
[8]
[10]
3
(S3a)
4
(S3a)
5
(S3a)
6
(S3a)
[16]
(W3b)
c
(W3a)
[17]
d
(W3a)
[14]
7
(S3a)
[12]
(W3a)
[15]
8
(S3a)
a
23
(S6c)
24
(S6c)
[24]
20
(S6a)
9
(S3b)
(P3)
[13]
[11]

Fig.2-2-2

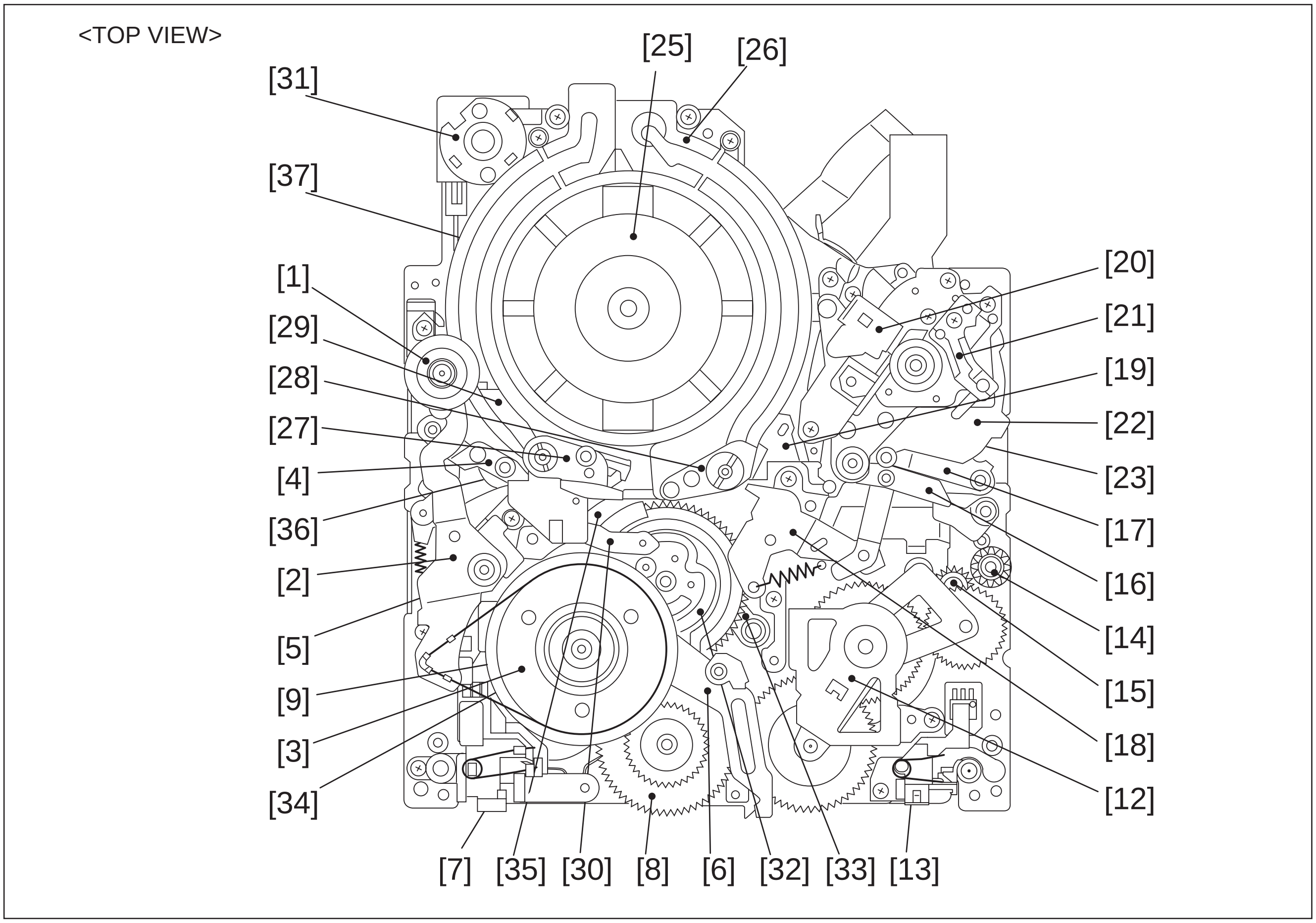
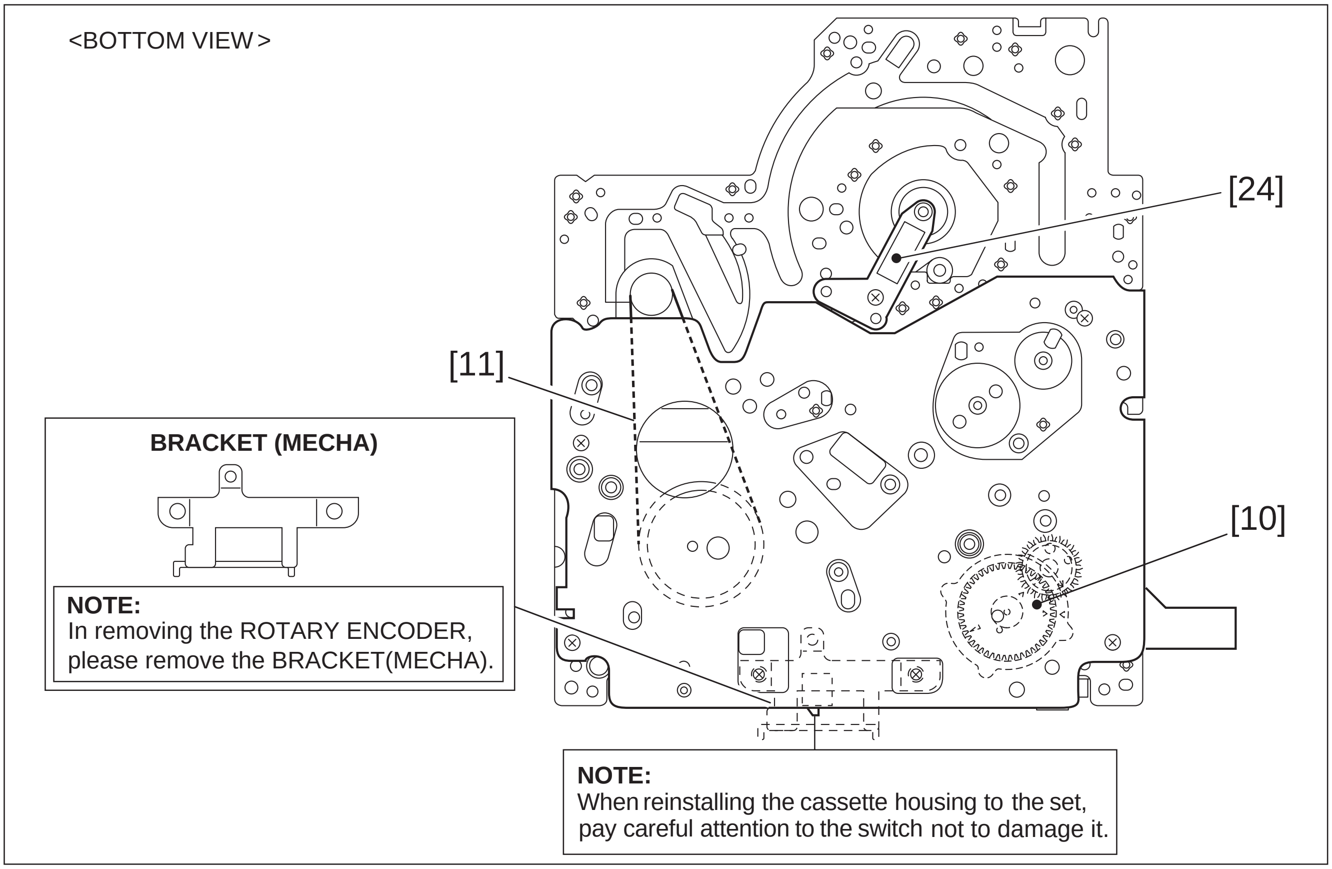

<TOP VIEW>
[25]
[26]
[31]
[37]
[1]
[29]
[28]
[27]
[4]
[36]
[2]
[5]
[9]
[3]
[34]
[20]
[21]
[19]
[22]
[23]
[17]
[16]
[14]
[15]
[18]
[12]
[7]
[35]
[30]
[8]
[6]
[32]
[33]
[13]

Fig.2-2-3


<BOTTOM VIEW >
[24]
[11]
[10]
BRACKET (MECHA)

NOTE:
In removing the ROTARY ENCODER, please remove the BRACKET(MECHA).

NOTE:
When reinstalling the cassette housing to the set, pay careful attention to the switch not to damage it.

Fig.2-2-4

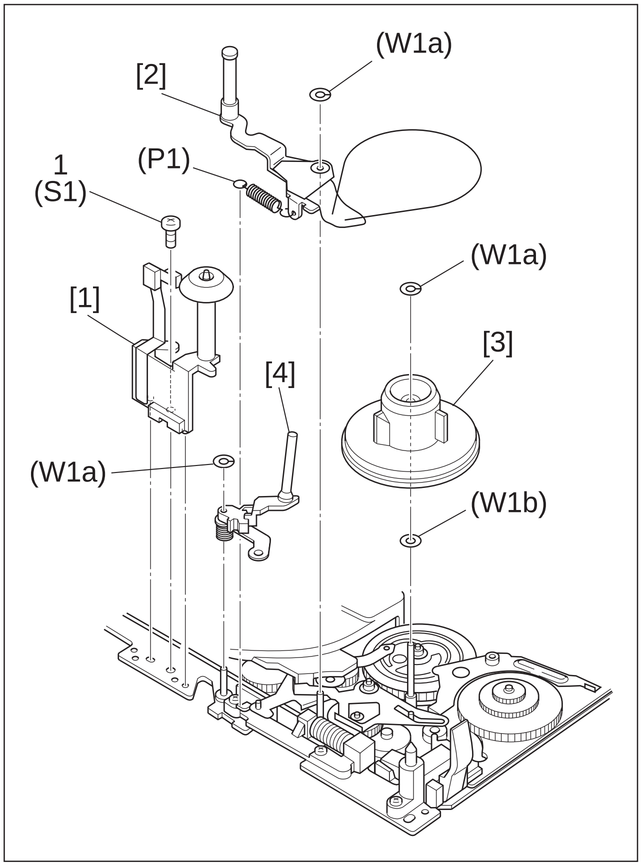

(W1a)
[2]
(P1)
1
(S1)
[1]
(W1a)
[3]
[4]
(W1a)
(W1b)

Fig.M1

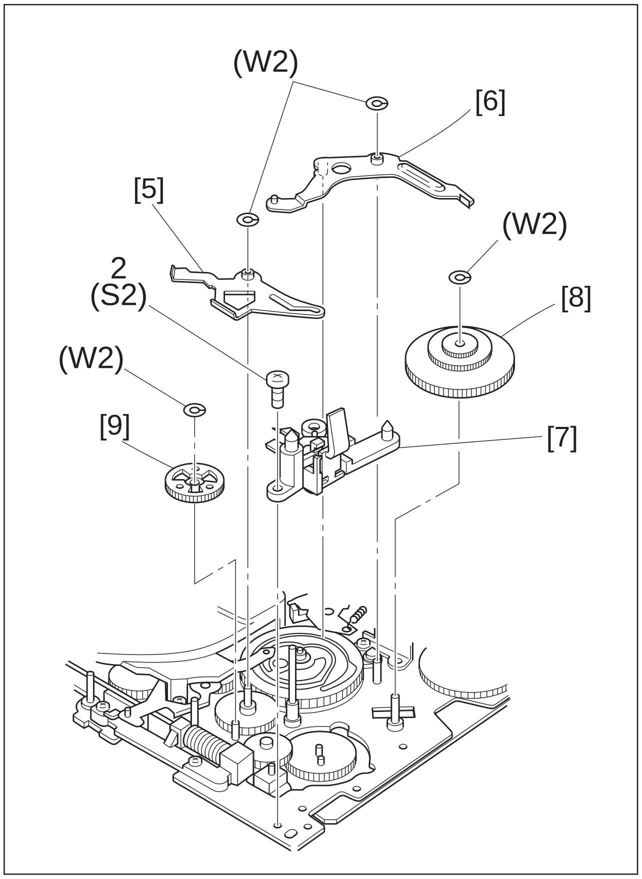

(W2)
[6]
[5]
(W2)
2
(S2)
[8]
(W2)
[9]
[7]

Fig.M2

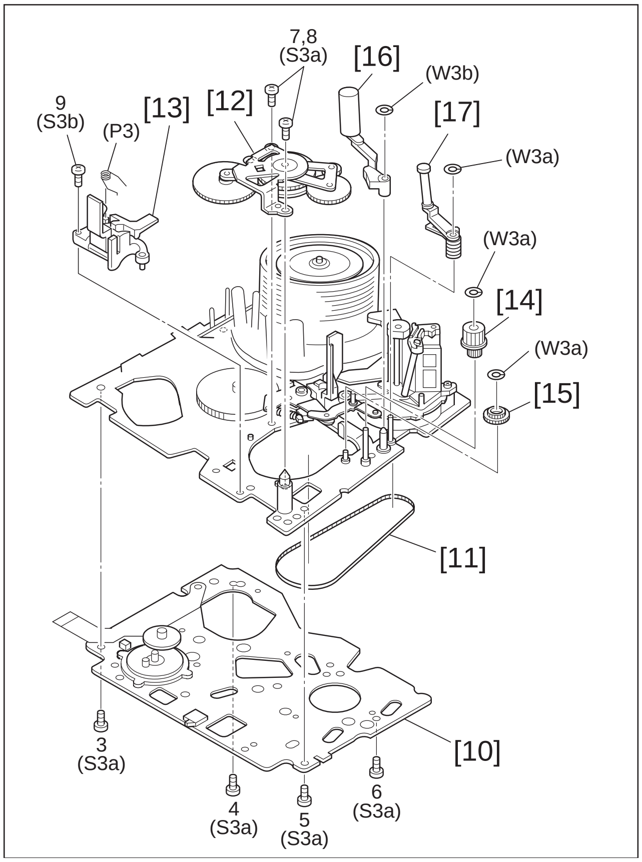
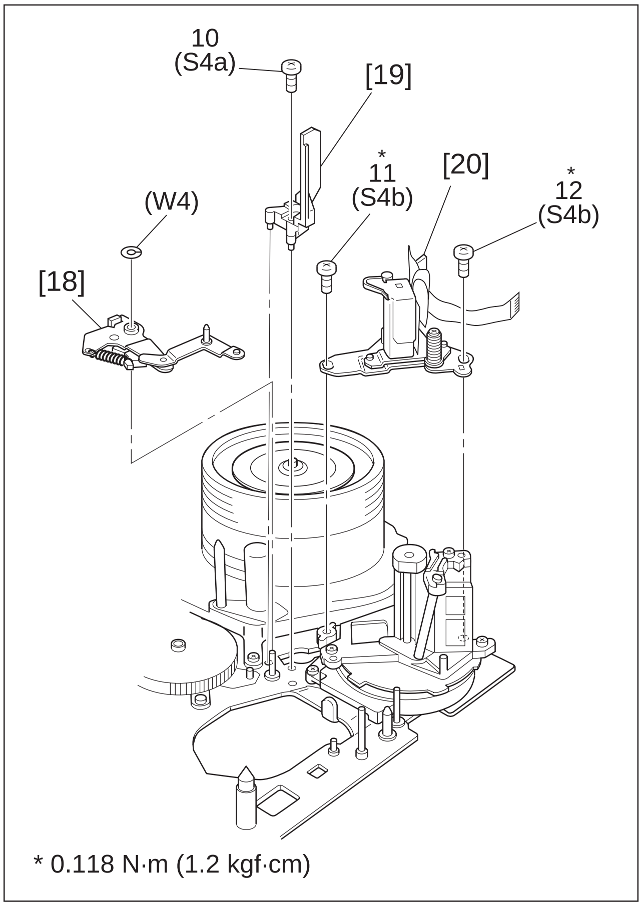
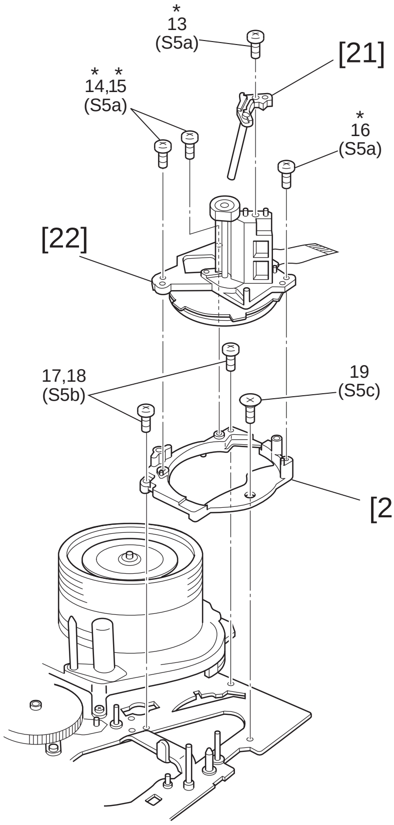

7,8
(S3a)
[16]
(W3b)
9
(S3b)
(P3)
[13]
[12]
[17]
(W3a)
(W3a)
[14]
(W3a)
[15]
[11]
[10]
3
(S3a)
4
(S3a)
5
(S3a)
6
(S3a)

Fig.M3


10
(S4a)
[19]
*
11
(S4b)
[20]
*
12
(S4b)
(W4)
[18]

* 0.118 N·m (1.2 kgf·cm)

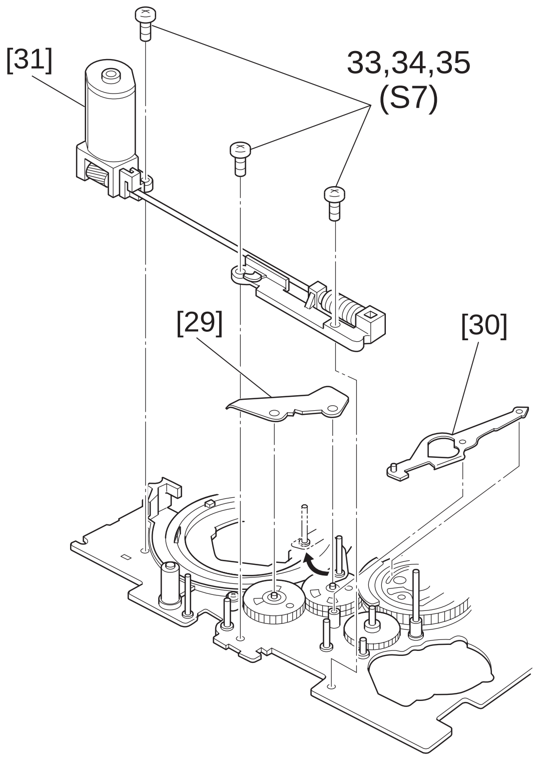
Fig.M4



*
13
(S5a)
[21]
* *
14,15
(S5a)
*
16
(S5a)
[22]
17,18
(S5b)
19
(S5c)
[23]

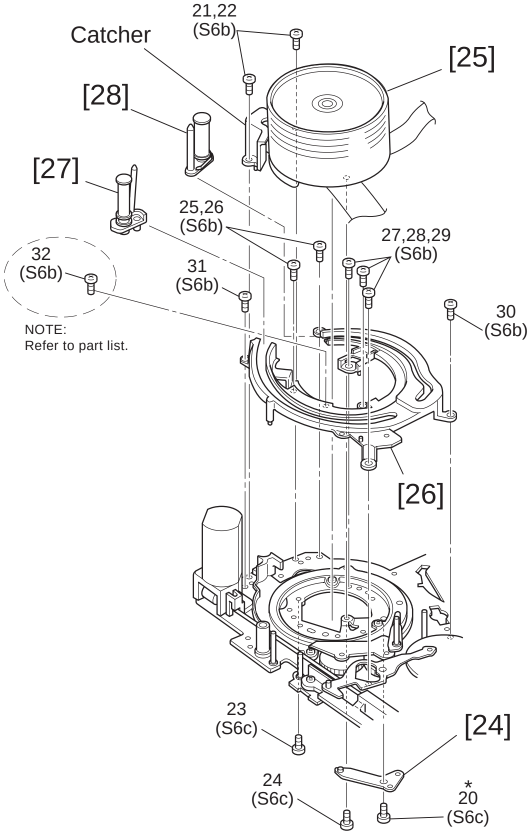
* 0.118 N·m (1.2 kgf·cm)

Fig.M5



[31]
33,34,35
(S7)
[29]
[30]

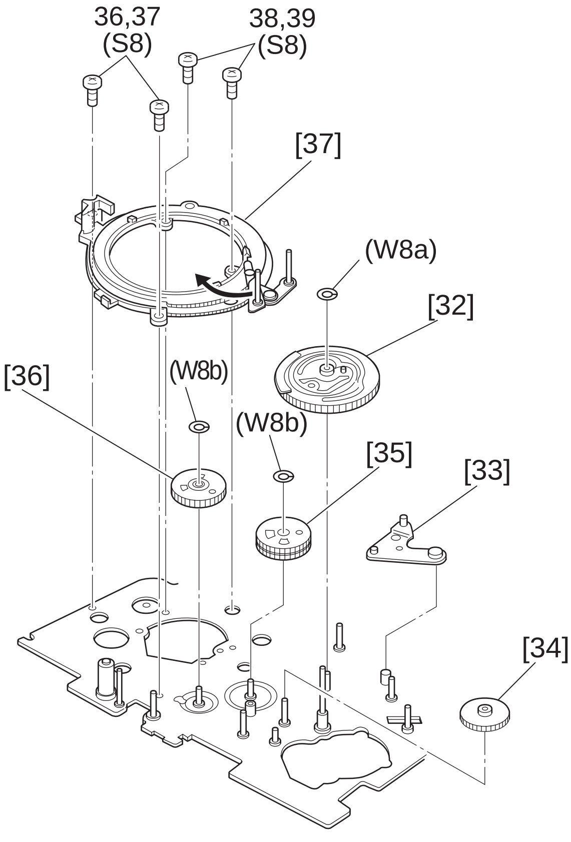
Fig.M7



Catcher
21,22
(S6b)
[25]
[28]
[27]
25,26
(S6b)
27,28,29
(S6b)
32
(S6b)
31
(S6b)
NOTE:
Refer to part list.
30
(S6b)
[26]
23
(S6c)
[24]
24
(S6c)
*
20
(S6c)

* 0.112 N·m (1.1 kgf·cm)

Fig.M6



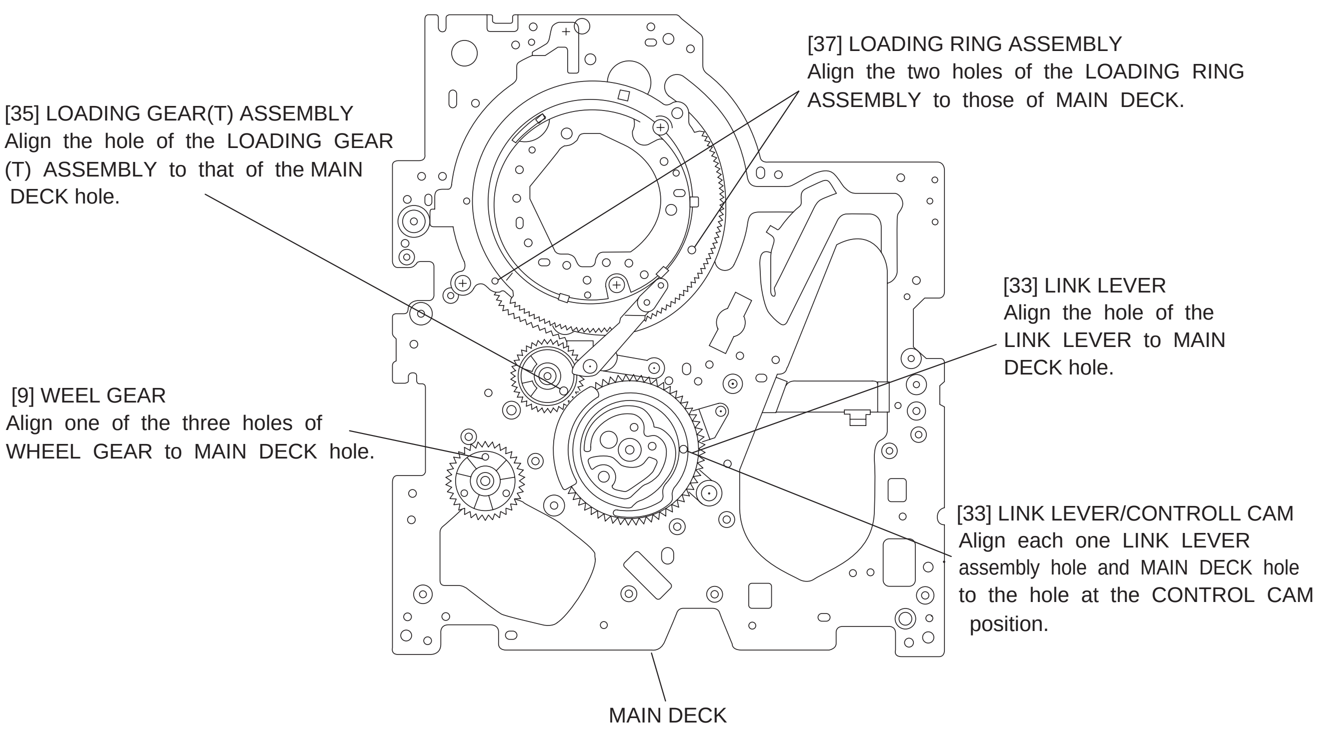
36,37
(S8)
38,39
(S8)
[37]
(W8a)
[32]
[36]
(W8b)
(W8b)
[35]
[33]
[34]

Fig.M8

2.2.4 CHECKUP AND ADJUSTMENT OF MECHANISM PHASE

NOTE:

Pay careful attention to the installing order and phase of mechanism parts of the loading system.


[37] LOADING RING ASSEMBLY
Align the two holes of the LOADING RING ASSEMBLY to those of MAIN DECK.

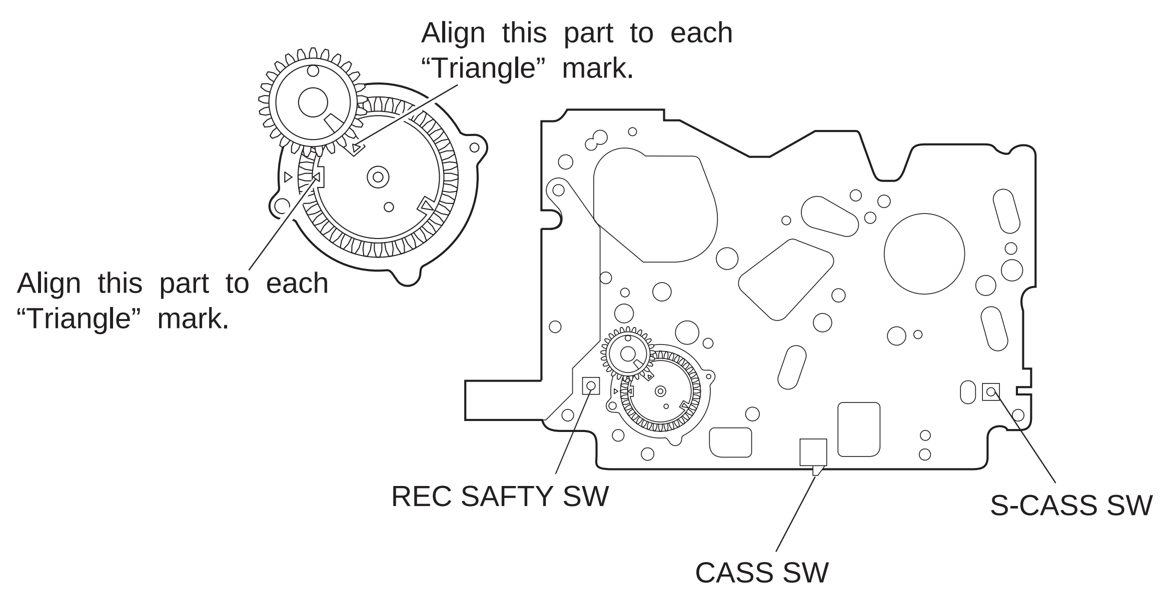
[35] LOADING GEAR(T) ASSEMBLY
Align the hole of the LOADING GEAR (T) ASSEMBLY to that of the MAIN DECK hole.

[33] LINK LEVER
Align the hole of the LINK LEVER to MAIN DECK hole.

[9] WEEL GEAR
Align one of the three holes of WHEEL GEAR to MAIN DECK hole.

[33] LINK LEVER/CONTROLL CAM
Align each one LINK LEVER assembly hole and MAIN DECK hole to the hole at the CONTROL CAM position.

Fig.2-2-5 Top of main deck


Align this part to each “Triangle” mark.

Align this part to each “Triangle” mark.

Fig.2-2-6 Rotary encoder

2.2.5 SERVISE NOTE

Use the following chart to manage screws.

Symbol No.	[1]	[7]	[10]				[12]		[13]	[19]	[20]		[21]	[22]			[23]		
Removing order of screw	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Place to stick screw																			
Reference drawing (Fig. No.)	M1	M2	M3							M4			M5						
Screw tightening torque	Ⅰ										Ⅱ						Ⅰ		

Symbol No.	[24]	[25]				[26]								[31]			[37]			
Removing order of screw	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Place to stick screw																				
Reference drawing (Fig. No.)	M6													M7			M8			
Screw tightening torque	Ⅲ	Ⅰ																		

Fig.2-2-7

<NOTE>

- Pay careful attention to tightening torque for each screw.
  Torque setting value of torque driver is limited. At the values over the maximum torque setting value, fasten a screw manually not to damage the screw thread.

Ⅰ : 0.216N･m(2.2kgf･cm)
Ⅱ : 0.118N･m(1.2kgf･cm)
Ⅲ : 0.112N･m(1.1kgf･cm)

2.2.6 REMARKS

2.2.6.1 Cleaning

(1) For cleaning of the upper drum (particularly video heads), use fine-woven cotton cloth with alcohol soaks through. Do not move the cloth but turn the upper drum counterclockwise.

NOTE:
Make sure not to move the cloth in the vertical direction to the video head, since it may cause damage of the video heads.

(2) For cleaning of parts of the tape transport system except the upper drum, use fine-woven cotton cloth or cotton swab soaked alcohol.

(3) After cleaning, confirm that the cleaned parts are completely dry before loading the deck with cassette tape.

2.2.6.2 Applying oil and grease

(1) Periodical oiling and greasing are not required but should be done to new parts when replacing. If oil and grease on the other parts of the other party are old and dirty, wipe them clean and apply new oil or grease.

(2) For parts and points to apply oil and grease, refer to the exploded view of the 3.2 VHS-C MECHANISM ASSEMBLY. Fig.2-2-8 specifies oil and grease to be used.

(3) When oiling, clean the objective parts with alcohol first and apply one or two drop(s) of oil. Too much oiling causes rotary parts to slip because of oil leakage.

Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	YTU94027	BB

specifies oil and grease to be used

Fig.2-2-8

2.3 VHS MECHANISM

2.3.1 Notes

This model's mechanism relates closely to the rotary encoder and system control circuit (the rotary encoder is meshed with the control cam).

The system control circuit detects the mechanism condition using the rotary encoder's phase (internal switch phase). Therefore, the parts such as the rotary encoder, control plate, loading gear and control cam need to be installed correctly in order for the mechanism to operate properly. (For the mechanism phase adjustment, refer to the installation of each part.)

- Before using a soldering iron, be sure to disconnect the power plug from the AC outlet.
- Do not touch any of the adjustment points until a defect position is specified.
- When plugging or unplugging the connector, be sure not to damage the wire.
- Be sure the springs are hooked all the way around and in the correct direction.
- When performing repairs, take care not to damage a catch, etc.

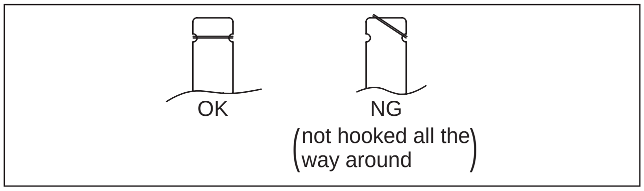


Fig.2-3-1

2.3.2 Mechanism operation check

When the mechanism is operated without a cassette loaded, operate the mechanism in the mechanism service mode.

2.3.3 Setting the mechanism assembling mode

The mechanism-assembling mode is provided with this mechanism. When disassembling and assembling, it is required to engage this mode.

Set the mode by adopting the following procedures.

(1) Remove the mechanism assembly using the disassembling procedure.

(2) Turn gear (a) of the loading motor manually to set the mechanism assembly to the eject end mode. Make sure that the main deck is connected to the guide hole (a) of the drive lever and the seal (a) of the main deck is connected to the mark "E" of the control plate. This condition is called the mechanism-assembling mode.

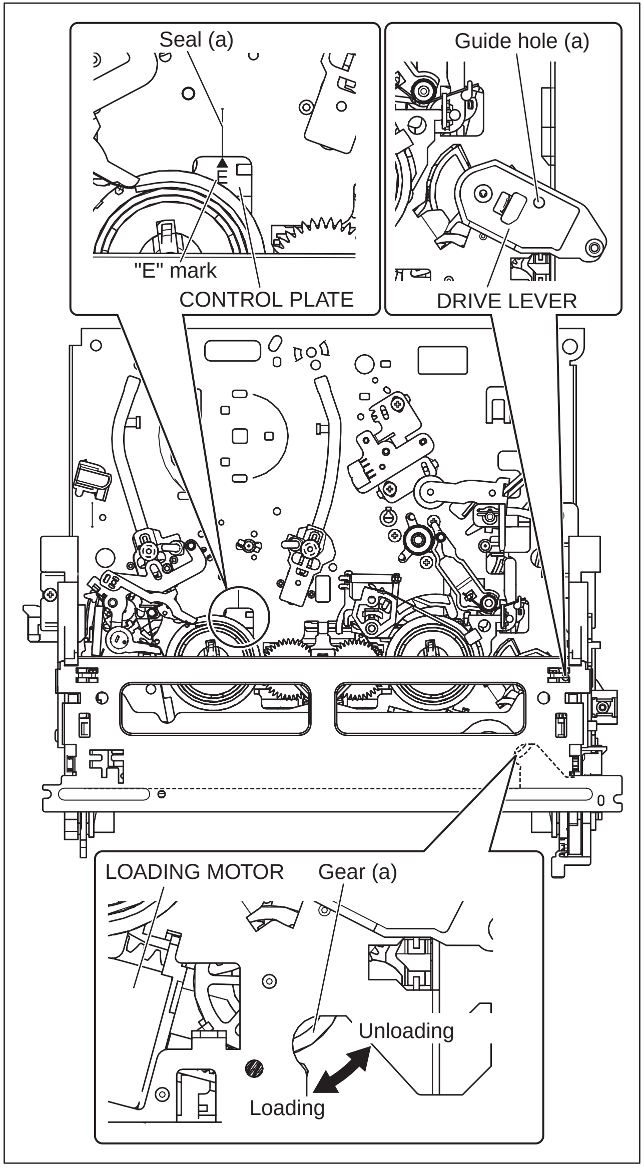


Fig.2-3-2

2.3.4 Layout of the main mechanism parts

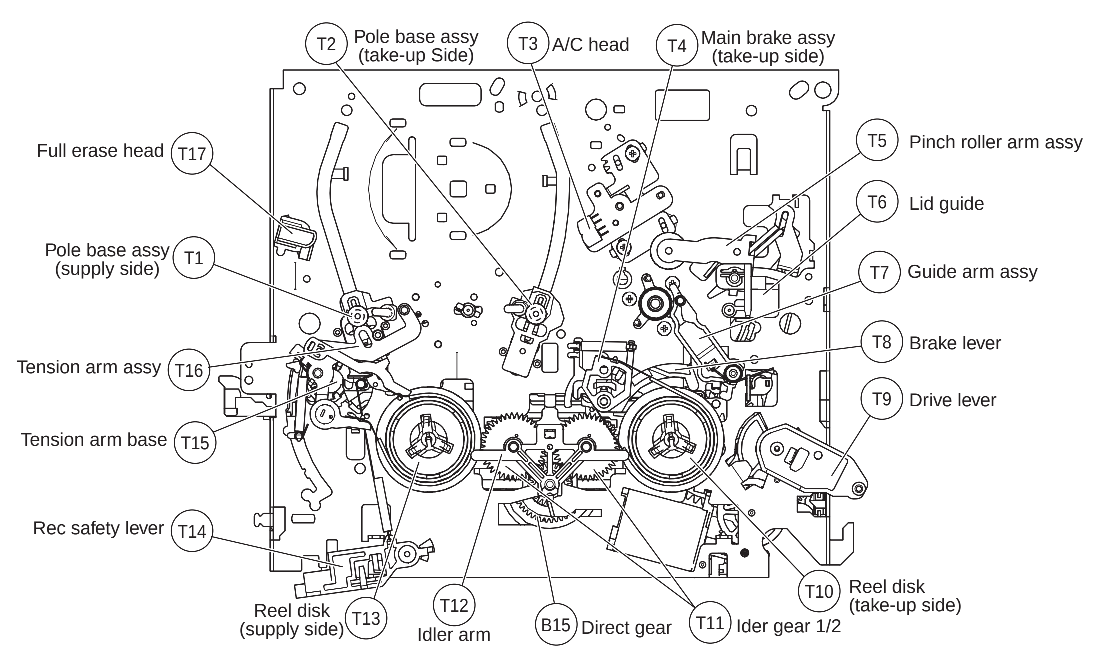

T2 Pole base assy (take-up Side)
T3 A/C head
T4 Main brake assy (take-up side)
Full erase head T17
T5 Pinch roller arm assy
T6 Lid guide
Pole base assy (supply side) T1
T7 Guide arm assy
Tension arm assy T16
T8 Brake lever
T9 Drive lever
Tension arm base T15
Rec safety lever T14
T10 Reel disk (take-up side)
Reel disk (supply side) T13
T12 Idler arm
B15 Direct gear
T11 Ider gear 1/2

Fig.2-3-3

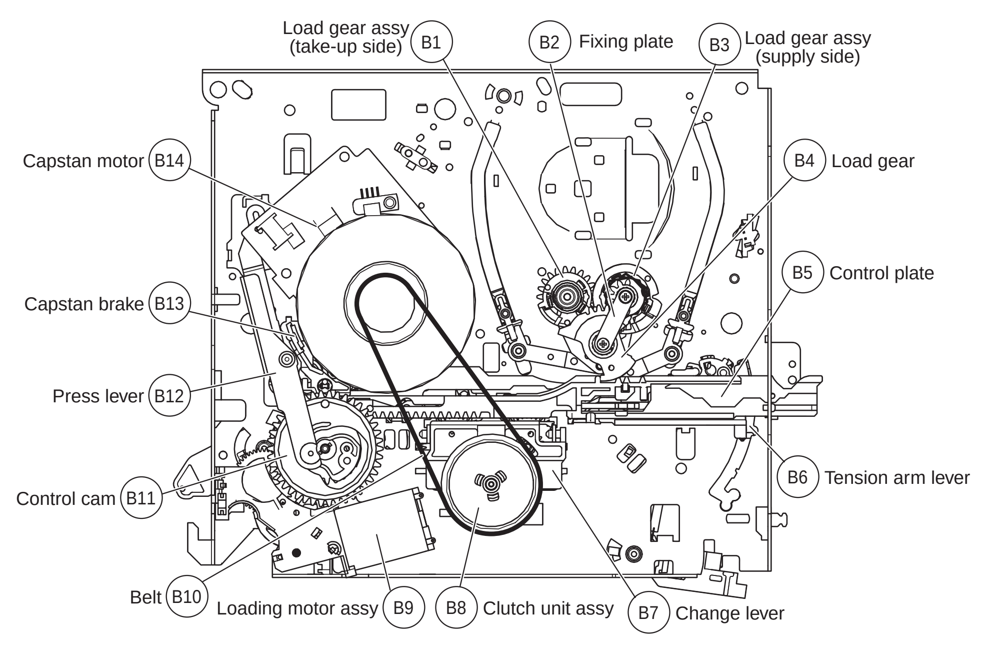

Load gear assy (take-up side) B1
B2 Fixing plate
B3 Load gear assy (supply side)
Capstan motor B14
B4 Load gear
B5 Control plate
Capstan brake B13
Press lever B12
B6 Tension arm lever
Control cam B11
Belt B10
Loading motor assy B9
B8 Clutch unit assy
B7 Change lever

Fig.2-3-4

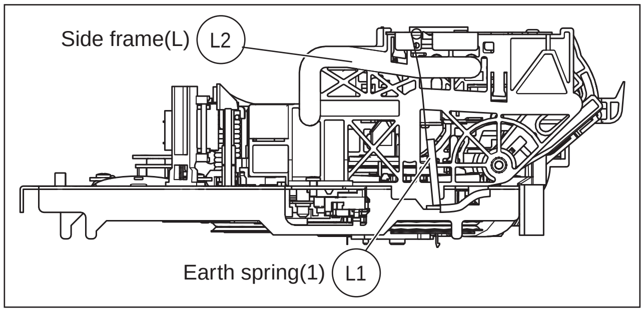

Side frame(L) L2
Earth spring(1) L1

Fig.2-3-5

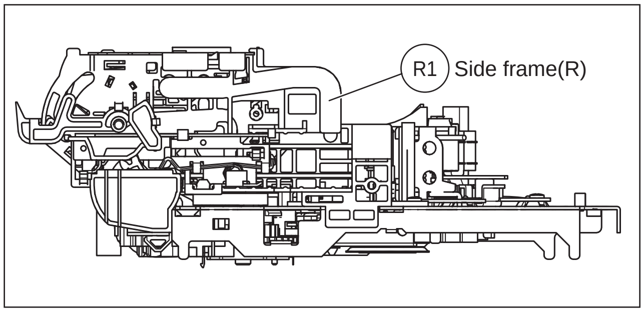

R1 Side frame(R)

Fig.2-3-6

2.3.5 Disassembling procedure table

This table shows the order of parts removal when replacing each part. For replacement, remove the parts in the order of 1 to 13 shown in the table and install the parts in the reverse order.

The symbol number before each part name shows the number in the figure “Layout of the main mechanism parts”. T and B on the right of each part name show the side from which the part should be removed (T: From the front of the mechanism, B: From the rear of the mechanism, T/B: From both sides).

Symbols and numbers		Symbols and numbers Removal parts (Reference items) Replacement parts	Front(T)/Back(B) of mechanism	Number of removal steps	L1	-	-	L2	-	R1	T6	T12	T11	T4	T10	T16	T15	B12	B11	B13	B9	B10	B2	B4	B3	B1	B5	B8	B15
					Earth spring (1)	Top frame	Cassette holder	Side frame (L)	Drive arm	Side frame (R)	Lid guide	Idler arm	Idler gear 1/2	Main brake (T)	Reel disk (T)	Tension arm	Tension arm base	Press lever	Control cam	Capstan brake assy	Loading motor assy	Belt	Fixing plate	Load gear	Loading gear assy (S)	Loading gear assy (T)	Control plate	Clutch unit	Direct gear
L1	2.1	Earth spring (1)	T	1																									
-	2.1	Top frame	T	2	1																								
-	2.1	Cassette holder	T	3	1	2																							
L2	2.1	Side frame (L)	T	3	1	2																							
-	2.1	Drive arm	T	5	1	2	3	4																					
R1	2.1	Side frame (R)	T	3	1	2																							
T3	2.2	A/C head	T	1																									
T17	-	FE head	T/B	1																									
T7	2.3	Guide arm assy	T	1																									
T6	2.3	Lid guide	T	1																									
T5	2.3	Pinch roller arm assy	T	2							1																		
T12	2.4	Idler arm	T	4	1	2	3																						
T11	2.4	Idler gear 1/2	T	5	1	2	3					4																	
T4	2.5	Main brake assy (T)	T	6	1	2	3					4	5																
T10	2.5	Reel disk (T)	T	7	1	2	3					4	5	6															
T16	2.5	Tension arm	T	6	1	2	3					4	5																
T13	2.5	Reel disk (S)	T	7	1	2	3					4	5			6													
T15	2.5	Tension arm base	T	7	1	2	3					4	5			6													
-	-	T-up head	T	8	1	2	3					4	5			6	7												
-	-	T-up lever	T	8	1	2	3					4	5			6	7												
T8	2.5	Brake lever	T	8	1	2	3					4	5	6	7														
T14	2.5	Rec safety lever	T	7	1	2	3	4	5	6																			
B12	2.6	Press lever	B	1																									
B11	2.6	Control cam	B	2														1											
B13	2.6	Capstan brake assy	B	3														1	2										
B9	2.6	Loading motor assy	B	4														1	2	3									
B10	2.7	Belt	B	1																									
B14	2.7	Capstan motor	T/B	2																		1							
-	-	Wire holder	T/B	1																									
B2	2.7	Fixing plate	B	1																									
B4	2.7	Load gear	B	2																			1						
B3	2.7	Loading gear assy(S)	B	3																			1	2					
B1	2.7	Loading gear assy(T)	B	4																			1	2	3				
T1	-	Pole base assy(S)	T/B	4																			1	2	3				
T2	-	Pole base assy(T)	T/B	5																			1	2	3	4			
-	-	Load gear base	B	5																			1	2	3	4			
B5	2.7	Control plate	B	6														1	2			3	4	5					
T9	-	Drive lever	T/B	10	1	2	3	4	5	6								7	8		9								
B8	2.8	Clutch unit	B	2																		1							
B15	2.8	Direct gear	B	3																		1						2	
B7	-	Change lever	T/B	6								1	2									3						4	5
B6	-	Tension arm lever	T/B	14	1	2	3					4	5			6	7	8	9			10	11	12			13		

2.3.6 REPLACEMENT OF THE MAIN MECHANISM PARTS

2.3.6.1 Cassette holder

2.3.6.1.1 Removal

(1) Remove the screws (a) and (b).

(2) Hold up the top frame, cassette holder assembly, drive arm assembly and side frames (L/R) all together and remove them by releasing the hooks (a) and (b).

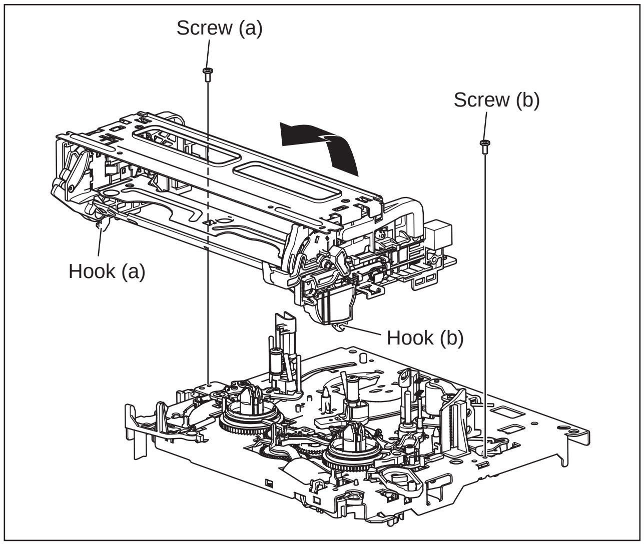

Screw (a)
Screw (b)
Hook (a)
Hook (b)

Fig.2-3-7

2.3.6.1.2 Installation (phase adjustment)

(1) Turn gear (a) of the loading motor assembly so that the main deck connects to the guide hole (a) of the drive lever.

(2) Hook the main deck to hooks (a) and (b).

(3) Place the projection of the drive lever to section (a) of the side frame (R) and install the cassette holder to the main deck. Make sure that the bosses of the side frame (L/R) connect with the holes (a) and (b) of the main deck.

(4) Secure screws (a) and (b).

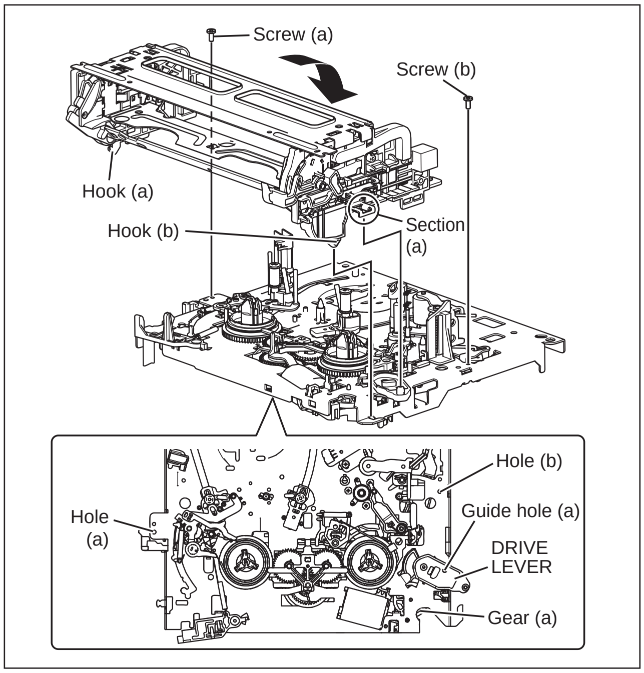

Screw (a)
Screw (b)
Hook (a)
Hook (b)
Section (a)
Hole (b)
Hole (a)
Guide hole (a)
DRIVE LEVER
Gear (a)

Fig.2-3-8

2.3.6.1.3 Disassembling

(1) Release hook (a) to remove the earth spring (1) from the top frame.

(2) Release the catches (a) and (b) and pull the top frame in the direction shown by the arrow (a) to remove it.

(3) Pull out the side frame (R).

(4) Pull out the cassette holder assembly and drive arm assembly from the side frame (L).

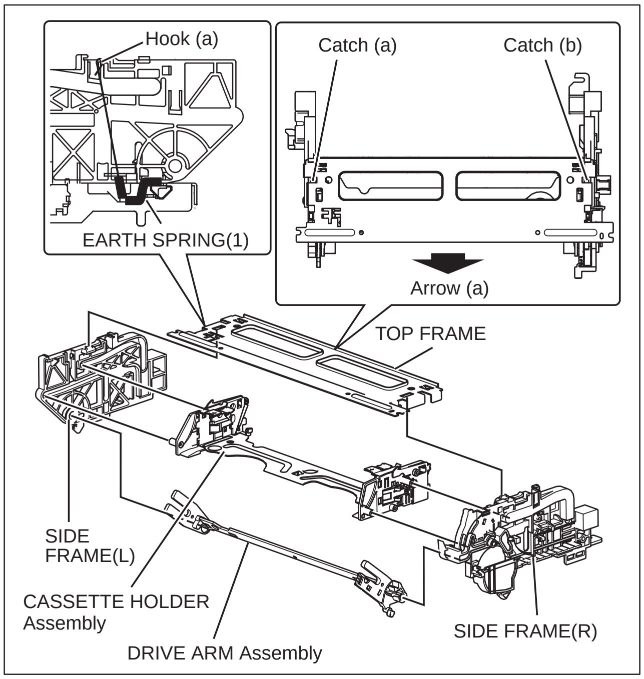

Hook (a)
Catch (a)
Catch (b)
EARTH SPRING(1)
Arrow (a)
TOP FRAME
SIDE FRAME(L)
CASSETTE HOLDER Assembly
DRIVE ARM Assembly
SIDE FRAME(R)

Fig.2-3-9

2.3.6.1.4 Assembling (installation and phase adjustment)

(1) Turn gear (a) of the loading motor assembly so that the main deck connects to the guide hole (a) of the drive lever.

(2) Place the projection of the drive lever on section (a) of the side frame (R) and install the side frame (R) to the main deck.

(3) Secure screw (b).

(4) Place section (b) of the drive arm on the gear of the side frame (R). Make sure that the pin of the door opener connects with section (c) of the drive arm.

(5) Place the drive arm on section (d) of the side frame (L) and install the side frame (L) on the main deck. Be sure to connect the earth spring (1) to the side frame (L).

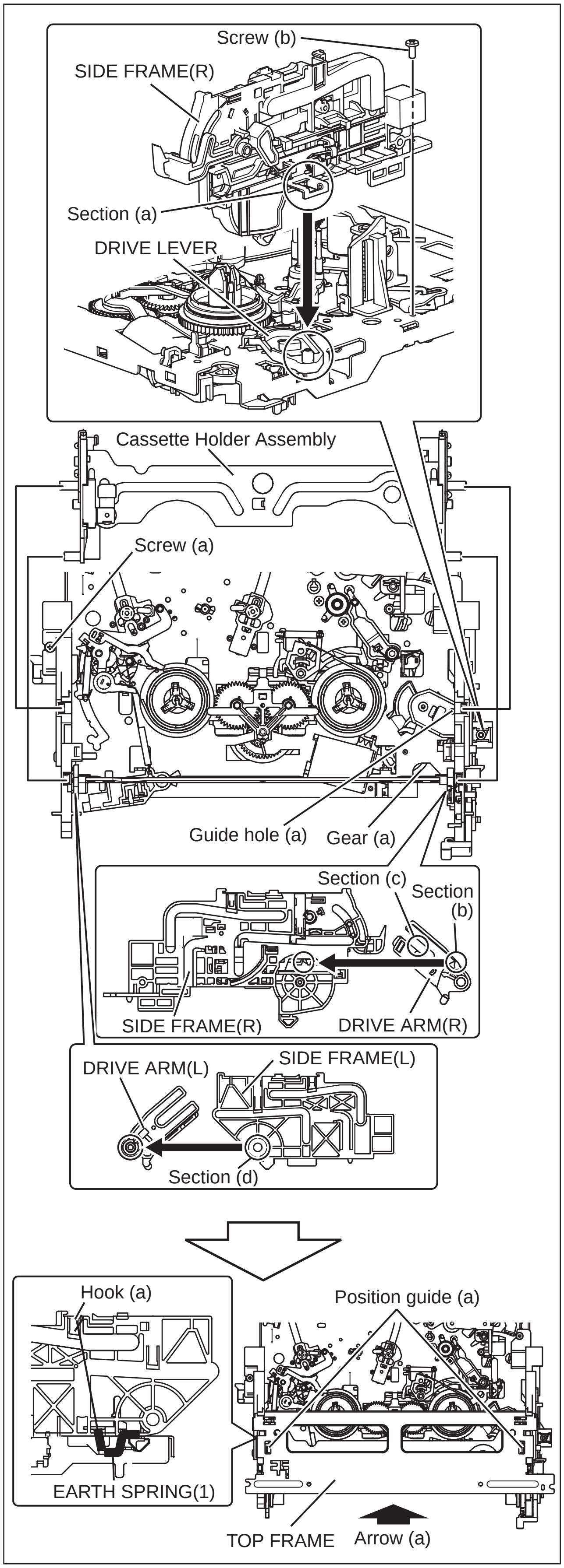
(6) Secure screw (a).

(7) Turn gear (a) of the loading motor assembly until the drive arm is vertical.

(8) Place the slit of the side frame (L/R) at the foot of the cassette holder assembly and install the cassette holder.

(9) Place the top frame on the position guide (a) of the side frame (L/R) and push it in the direction shown by the arrow (a) for installation.

(10) Hook the earth spring (1) to the hook (a) of the top frame.



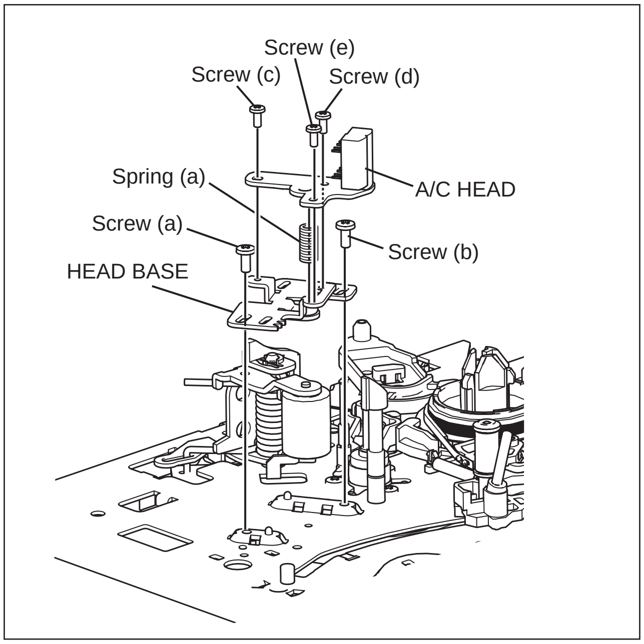
Screw (b)
SIDE FRAME(R)
Section (a)
DRIVE LEVER
Cassette Holder Assembly
Screw (a)
Guide hole (a)
Gear (a)
Section (c)
Section (b)
SIDE FRAME(R)
DRIVE ARM(R)
DRIVE ARM(L)
SIDE FRAME(L)
Section (d)
Hook (a)
Position guide (a)
EARTH SPRING(1)
TOP FRAME
Arrow (a)

Fig.2-3-10

2.3.6.2 A/C head

2.3.6.2.1 Removal

(1) Remove screws (a) and (b).
(2) Remove the A/C head together with the head base.
(3) Remove the screws (c), (d) and (e) to remove the spring (a) and the A/C head from the Head base.

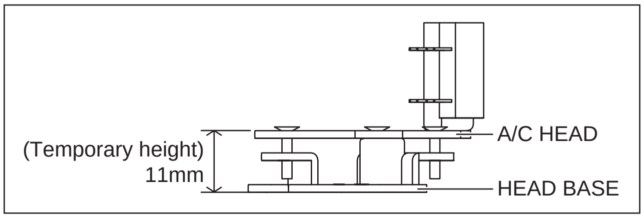


Screw (e)
Screw (c)
Screw (d)
Spring (a)
A/C HEAD
Screw (a)
Screw (b)
HEAD BASE

Fig.2-3-11

2.3.6.2.2 Installation (initial setting)

To install the A/C head to the head base, secure the screws in the order of (c), (d) and (e). To make the adjustment easy, temporarily elevate the A/C head.



(Temporary height)
11mm
A/C HEAD
HEAD BASE

Fig.2-3-12

2.3.6.3 Guide arm, pinch roller arm

2.3.6.3.1 Removal

(1) Remove the spring (a) from the hook (a) and detach the guide arm assembly.
(2) Release the catch (a) to remove the lid guide.
(3) Remove the spring (b) from the hook (b) and detach the pinch roller arm assembly.

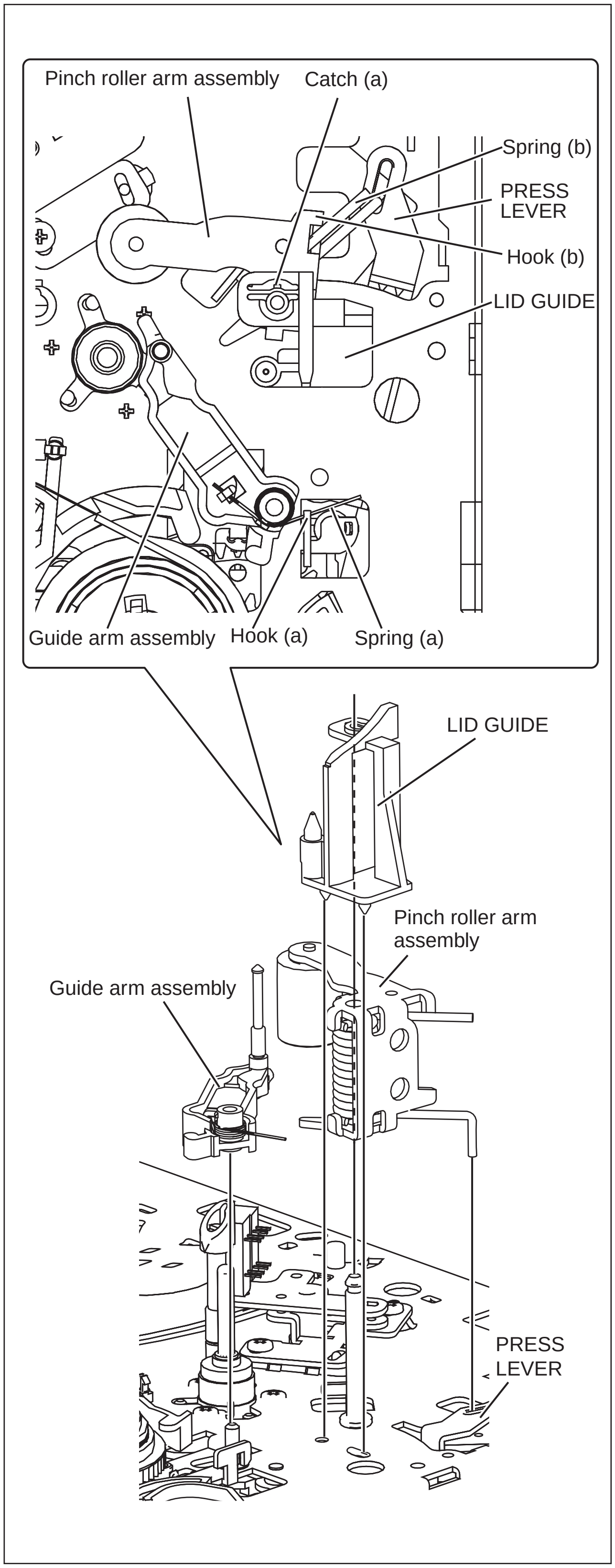

Pinch roller arm assembly
Catch (a)
Spring (b)
PRESS LEVER
Hook (b)
LID GUIDE
Guide arm assembly
Hook (a)
Spring (a)
LID GUIDE
Pinch roller arm assembly
Guide arm assembly
PRESS LEVER

Fig.2-3-13

2.3.6.4 Idler arm, idler gear 1/2

2.3.6.4.1 Removal

(1) Release the catches (a) and (b) to detach the idler arm.
(2) Detach the idler gear 1/2.

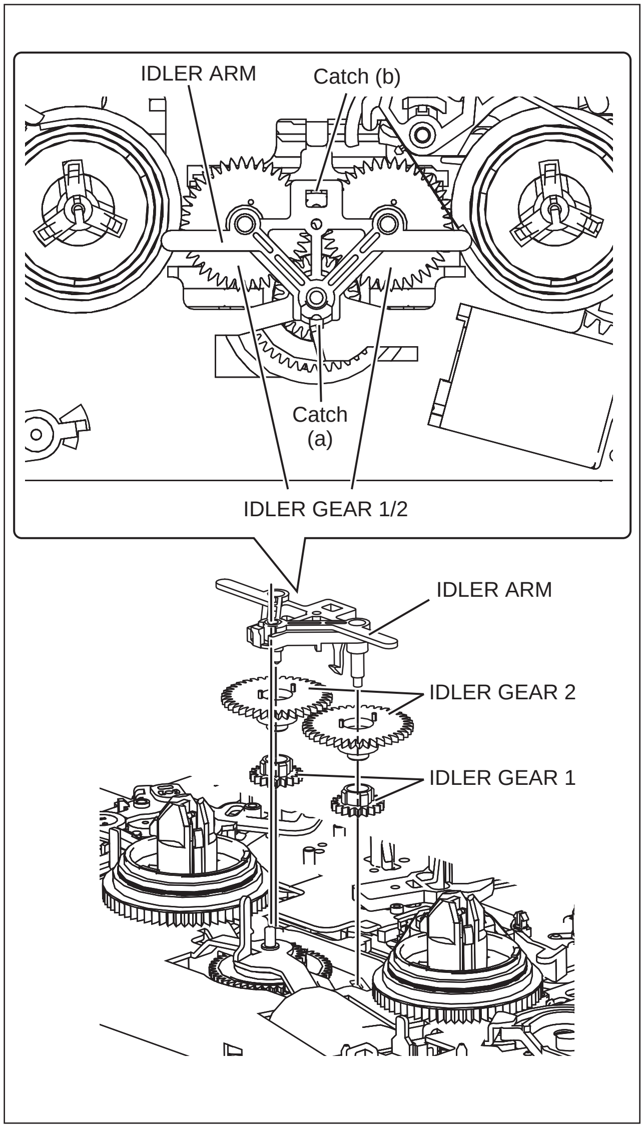

IDLER ARM
Catch (b)
Catch (a)
IDLER GEAR 1/2
IDLER ARM
IDLER GEAR 2
IDLER GEAR 1

Fig.2-3-14

2.3.6.5 Main brake (T), brake lever, tension arm, reel disk (S/T), Rec safety lever

2.3.6.5.1 Removal

(1) Remove the spring (a). (Detach section (b) of the spring (a).)
(2) Release the catch (a) to detach the main brake (T).
(3) Release the catch (b) to detach the reel disk (T) and the spacer.
(4) Lift up and turn section (b) of the brake lever counterclockwise to remove the brake lever.
(5) Remove the spring (b) from the hook (a).
(6) Release the catch (c) to detach the tension arm.
(7) Release the catch (d) to detach the reel disk (S) and the spacer.
(8) Remove the spring (c) from the hook (b).
(9) Turn the tension arm base in the direction shown by arrow (a) to release catch (e). Place the projections of the tension arm base to the holes (a) to detach the tension arm base.
(10) While releasing the catch (f), turn the Rec safety lever counterclockwise to remove it.

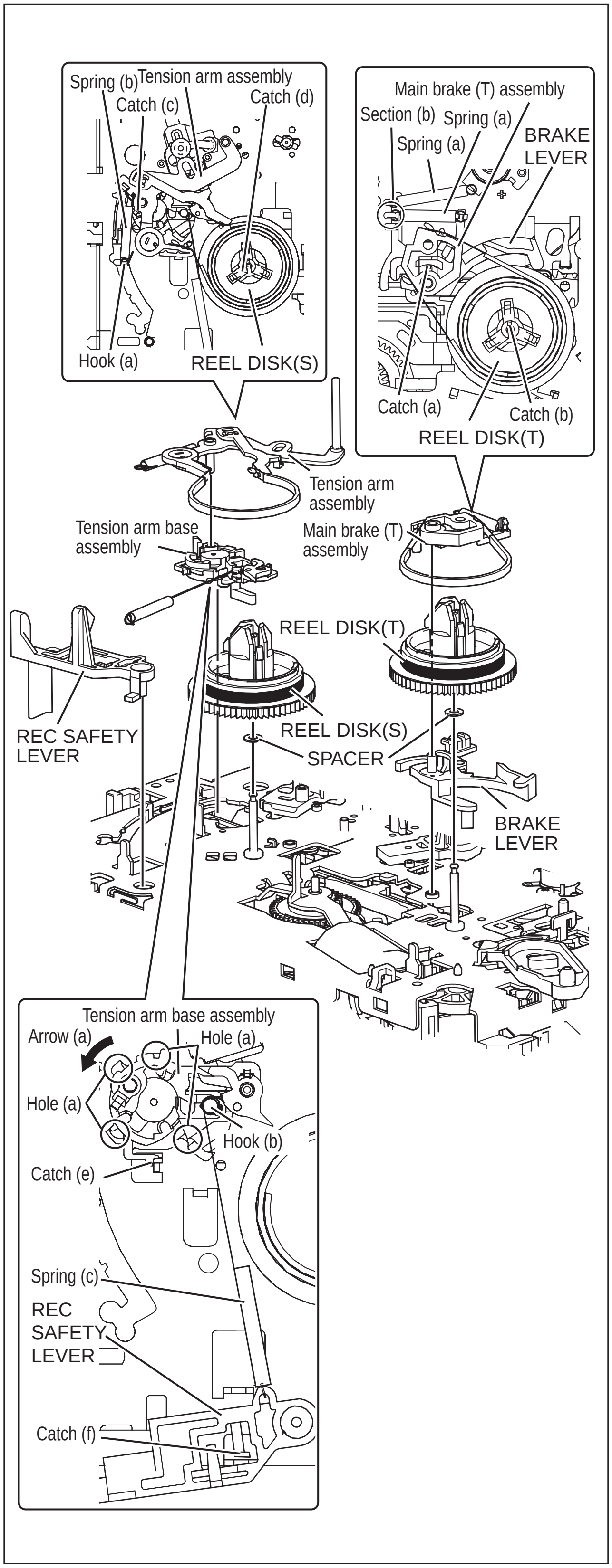

Spring (b)
Tension arm assembly
Catch (c)
Catch (d)
Hook (a)
REEL DISK(S)
Main brake (T) assembly
Section (b)
Spring (a)
Spring (a)
BRAKE LEVER
Catch (a)
Catch (b)
REEL DISK(T)
Tension arm assembly
Tension arm base assembly
Main brake (T) assembly
REEL DISK(T)
REC SAFETY LEVER
REEL DISK(S)
SPACER
BRAKE LEVER
Tension arm base assembly
Arrow (a)
Hole (a)
Hole (a)
Hook (b)
Catch (e)
Spring (c)
REC SAFETY LEVER
Catch (f)

Fig.2-3-15

2.3.6.6 Press lever, control cam, capstan brake assembly, loading motor assembly

2.3.6.6.1 Removal

1. Remove the slit washer (a) to detach the press lever.
2. Release the slit washer (b) to detach the control cam.
3. Release the catch (b) to detach the capstan brake assembly.
4. Remove the solder (a).
5. Remove the screw (a).
6. Release the catches (c) and (d) to detach the loading motor assembly.

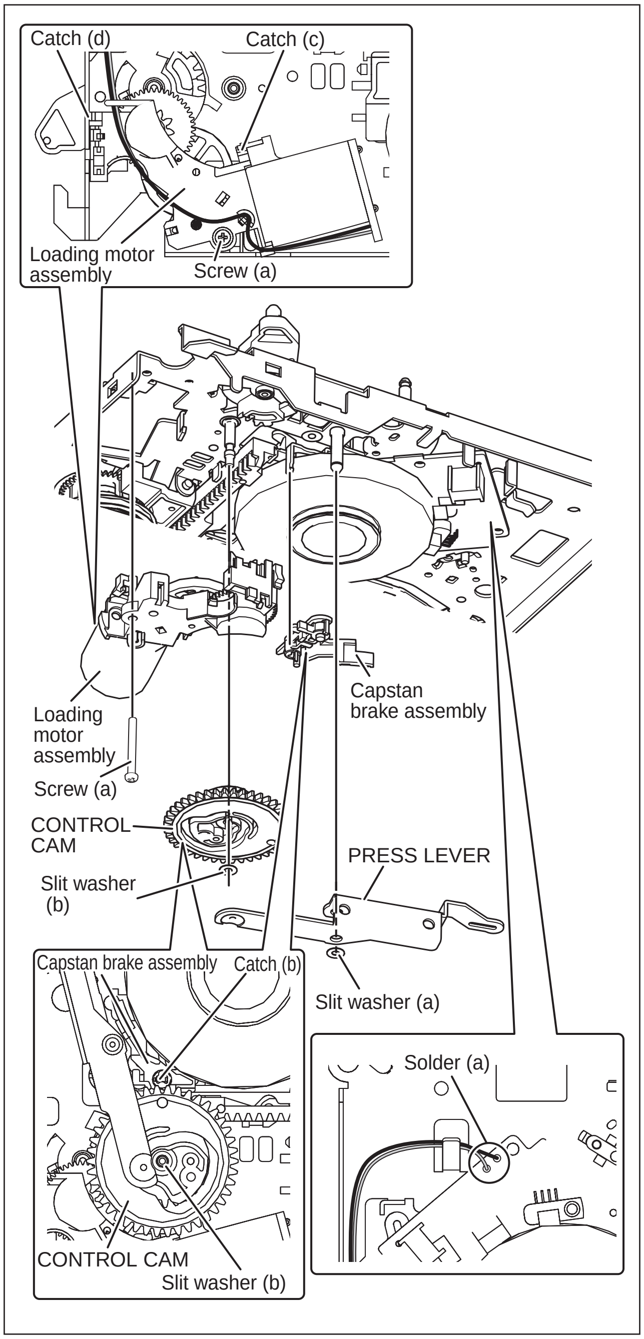

Catch (d)
Catch (c)
Loading motor assembly
Screw (a)
Loading motor assembly
Screw (a)
CONTROL CAM
Slit washer (b)
Capstan brake assembly
PRESS LEVER
Slit washer (a)
Capstan brake assembly
Catch (b)
CONTROL CAM
Slit washer (b)
Solder (a)

Fig.2-3-16

2.3.6.6.2 Installation (phase adjustment)

(1) Attach the loading motor assembly to the main deck.
(2) Secure the screw (a).
(3) Solder the wire to section (a).
(4) Arrange the wire along with the position guide (b).
(5) Attach the capstan brake assembly to the main deck.
(6) Place the main deck on the guide hole (a) of the control plate.
(7) Place the main deck on the guide hole (b) of the drive lever.
(8) Place the main deck no guide hole (c) of the control cam to install the control cam.
(9) Move the capstan brake in the direction shown by the arrow (a) to attach the press lever to the shaft (a). Make sure that the boss of the press lever fits in the control cam, and that the shaft (b) of the pinch roller arm assembly connects with the hole of the press lever.
(10) Attach slit washer (a) to shaft (a).

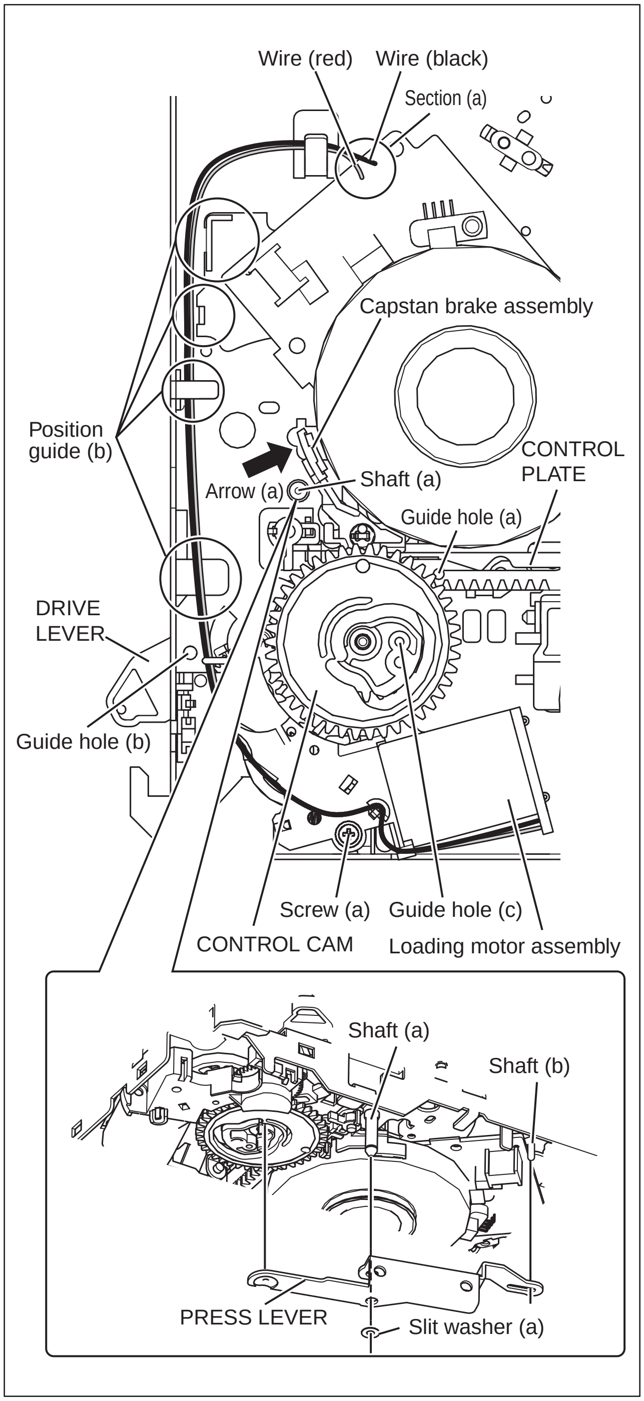
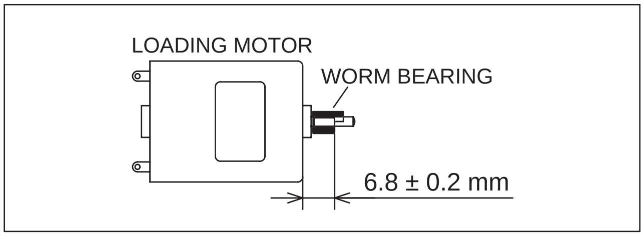

Wire (red)
Wire (black)
Section (a)
Capstan brake assembly
Position guide (b)
CONTROL PLATE
Arrow (a)
Shaft (a)
Guide hole (a)
DRIVE LEVER
Guide hole (b)
Screw (a)
Guide hole (c)
CONTROL CAM
Loading motor assembly
Shaft (a)
Shaft (b)
PRESS LEVER
Slit washer (a)

Fig.2-3-17

Note:

- When replacing the worm bearing of the loading motor assembly, attach it according to the following specification.
  If worm bearing is not attached correctly, a mechanism noise may occur. (See Fig. 2-3-18)



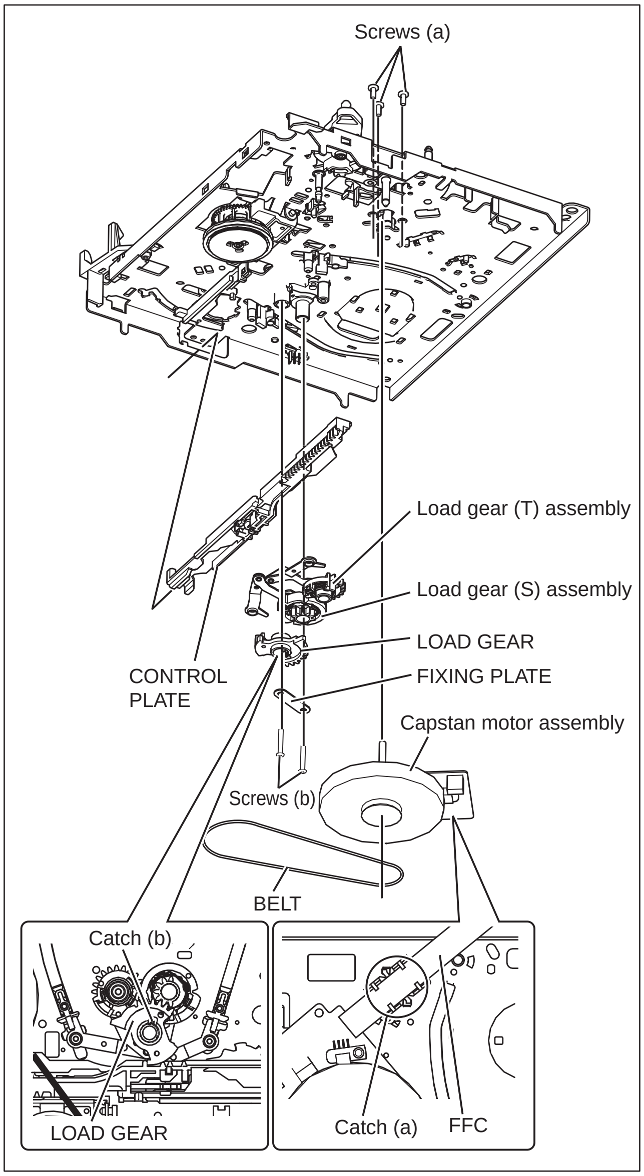
LOADING MOTOR
WORM BEARING
6.8 ± 0.2 mm

Fig.2-3-18

2.3.6.7 Capstan motor, load gear, control plate

2.3.6.7.1 Removal

(1) Detach the belt.
(2) Check that the FFC connector on the drum is disconnected.
(3) Release the catch (a) to remove the FFC wire.
(4) Remove the screws (a) to detach the capstan motor.
(5) Remove the screws (b) to detach the fixing plate.
(6) Release the catch (b) to detach the load gear.
(7) Turn the load gear (S/T) in the loading direction to detach it.
(8) Remove the control plate.



Screws (a)
Load gear (T) assembly
Load gear (S) assembly
LOAD GEAR
CONTROL PLATE
FIXING PLATE
Capstan motor assembly
Screws (b)
BELT
Catch (b)
LOAD GEAR
Catch (a)
FFC

Fig.2-3-19

2.3.6.7.2 Installation (phase adjustment)

(1) Place the main deck on the guide hole (a) of the tension arm lever.
(2) Place the main deck on the guide hole (b) of the brake lever.
(3) Attach the control plate to align with the position guide (a).
(4) Place the hole (c) of the load arm (T) on the pole base (T) and the load gear (T) on the load gear base.
(5) Place the hole (d) of the load arm (S) on the pole base (S) and the load gear (S) on the load gear base. Be sure to align the guide mark (e) of the load gear (T) to that of the load gear (S).
(6) Turn the load gear (S/T) in the unloading direction to place the main deck on the guide hole (f) of the load gear (T).
(7) Place the main deck on the guide hole (g) of the control plate.
(8) Attach the load gear on the load gear base so that the control plate is placed on the edge (h) of the load gear.
(9) Place the fixing plate on the shaft of the load gear base and secure the screws (b).

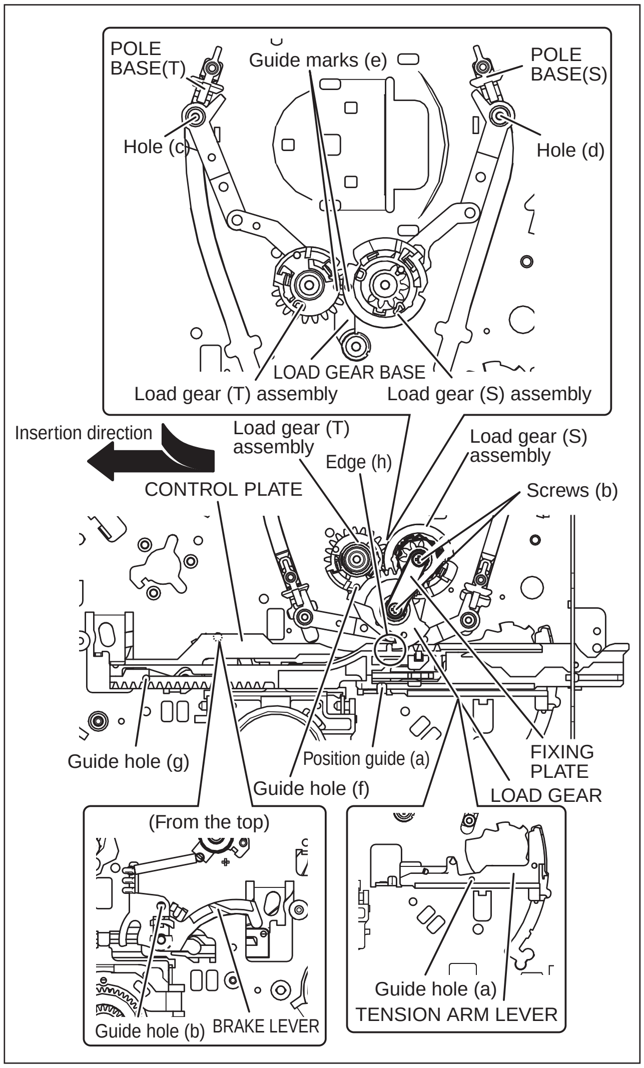

POLE BASE(T)
Guide marks (e)
POLE BASE(S)
Hole (c)
Hole (d)
LOAD GEAR BASE
Load gear (T) assembly
Load gear (S) assembly
Insertion direction
Load gear (T) assembly
Edge (h)
Load gear (S) assembly
CONTROL PLATE
Screws (b)
Guide hole (g)
Position guide (a)
Guide hole (f)
FIXING PLATE
LOAD GEAR
(From the top)
Guide hole (b)
BRAKE LEVER
Guide hole (a)
TENSION ARM LEVER

Fig.2-3-20

2.3.6.8 Clutch unit assembly, direct gear

2.3.6.8.1 Removal

(1) Remove the slit washer (a) to detach the clutch unit assembly.
(2) Remove the spring (a) and the direct gear.

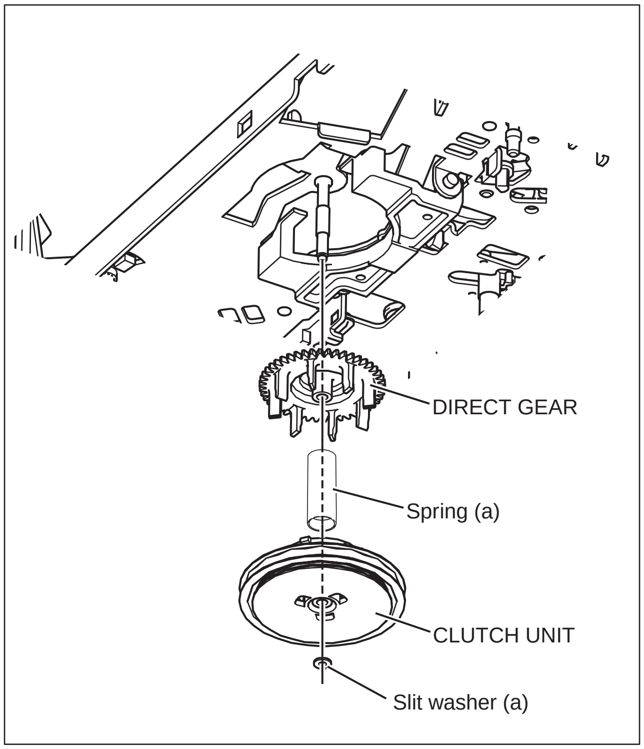
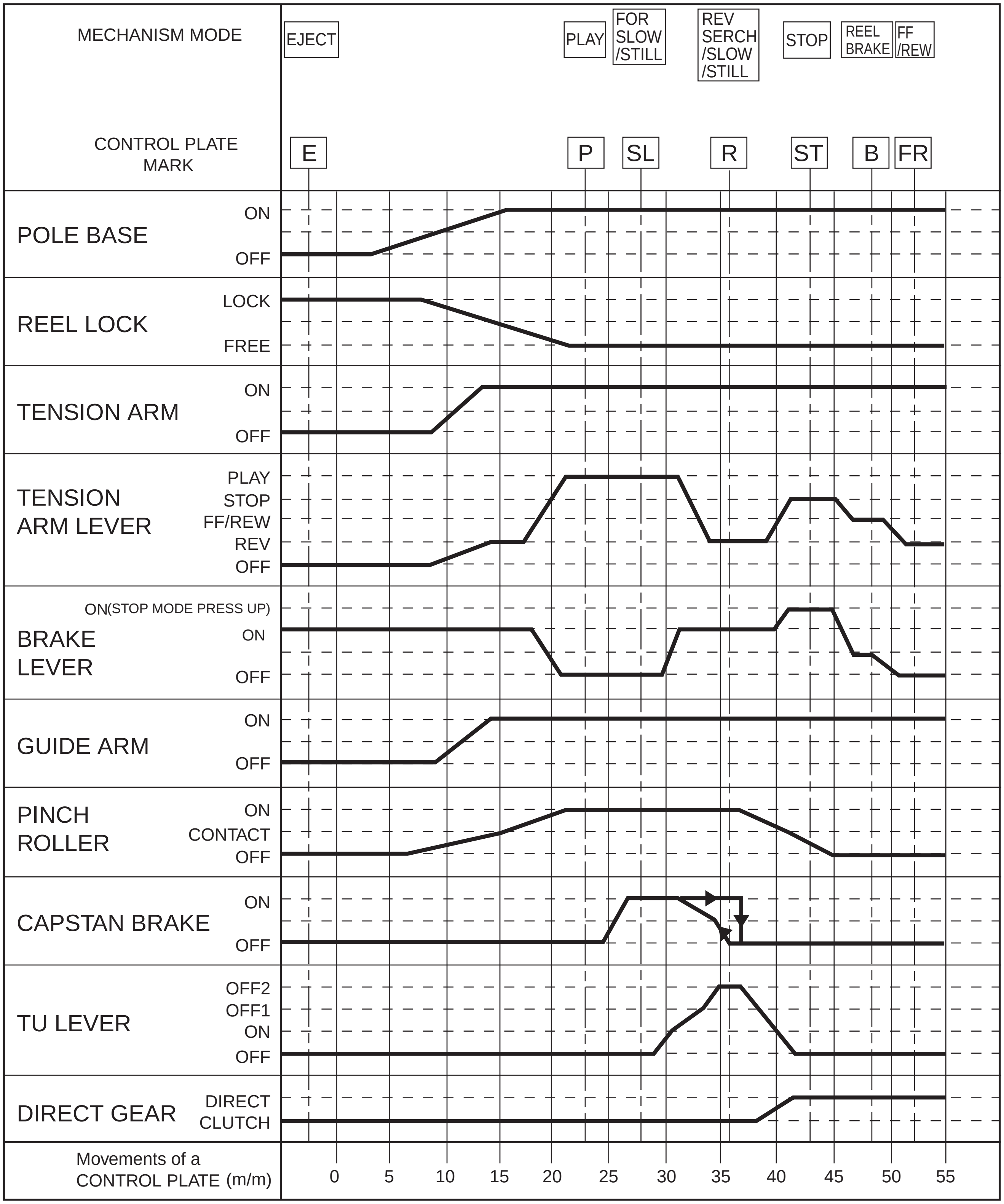

DIRECT GEAR
Spring (a)
CLUTCH UNIT
Slit washer (a)

Fig.2-3-21

2.3.7 MECHANISM TIMING CHART


MECHANISM MODE
EJECT
PLAY
FOR SLOW /STILL
REV SERCH /SLOW /STILL
STOP
REEL BRAKE
FF /REW
CONTROL PLATE MARK
E
P
SL
R
ST
B
FR
POLE BASE
ON
OFF
REEL LOCK
LOCK
FREE
TENSION ARM
ON
OFF
TENSION ARM LEVER
PLAY
STOP
FF/REW
REV
OFF
BRAKE LEVER
ON(STOP MODE PRESS UP)
ON
OFF
GUIDE ARM
ON
OFF
PINCH ROLLER
ON
CONTACT
OFF
CAPSTAN BRAKE
ON
OFF
TU LEVER
OFF2
OFF1
ON
OFF
DIRECT GEAR
DIRECT
CLUTCH
Movements of a CONTROL PLATE (m/m)
0
5
10
15
20
25
30
35
40
45
50
55

2.3.8 REMARKS

2.3.8.1 Cleaning

(1) For cleaning of the upper drum (particularly video heads), use fine-woven cotton cloth with alcohol soaks through. Do not move the cloth but turn the upper drum counterclockwise.

NOTE:
Make sure not to move the cloth in the vertical direction to the video head, since it may cause damage of the video heads.

(2) For cleaning of parts of the tape transport system except the upper drum, use fine-woven cotton cloth or cotton swab soaked alcohol.

(3) After cleaning, confirm that the cleaned parts are completely dry before loading the deck with cassette tape.

2.3.8.2 Applying oil and grease

(1) Periodical oiling and greasing are not required but should be done to new parts when replacing. If oil and grease on the other parts of the other party are old and dirty, wipe them clean and apply new oil or grease.

(2) For parts and points to apply oil and grease, refer to the exploded view of the 3.3 VHS MECHANISM ASSEMBLY. Fig.2-3-22 specifies oil and grease to be used.

(3) When oiling, clean the objective parts with alcohol first and apply one or two drop(s) of oil. Too much oiling causes rotary parts to slip because of oil leakage.

Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	COSMO-HV56	BB

specifies oil and grease to be used

Fig.2-3-22

VICTOR COMPANY OF JAPAN, LIMITED
AV & MULTIMEDIA COMPANY CAMCORDER CATEGORY 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama, kanagawa-prefecture, 221-8528, Japan

Printed in Japan
200304WPC

PARTS LIST

SAFETY PRECAUTION

Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.

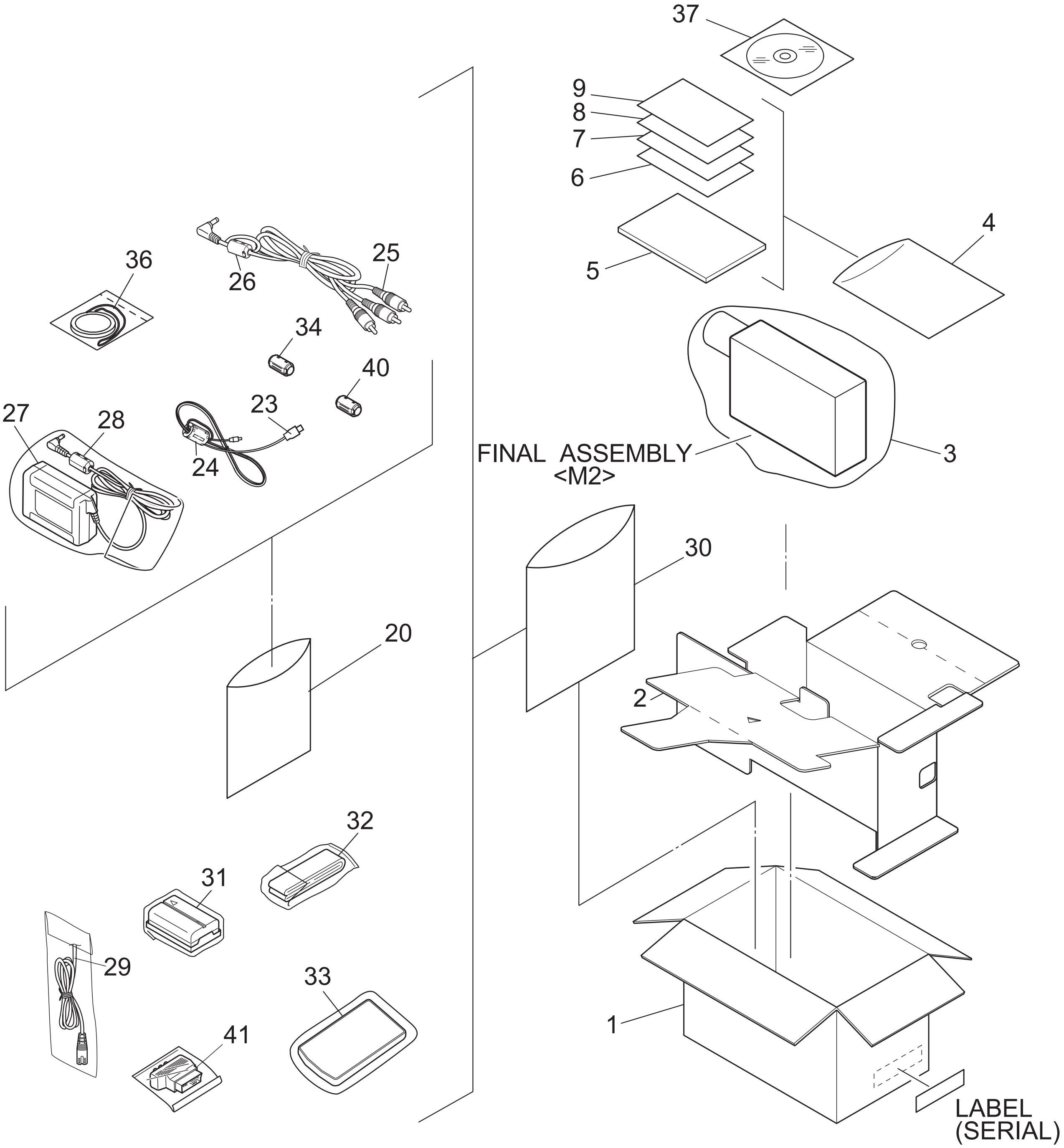
BEWARE OF BOGUS PARTS

Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.

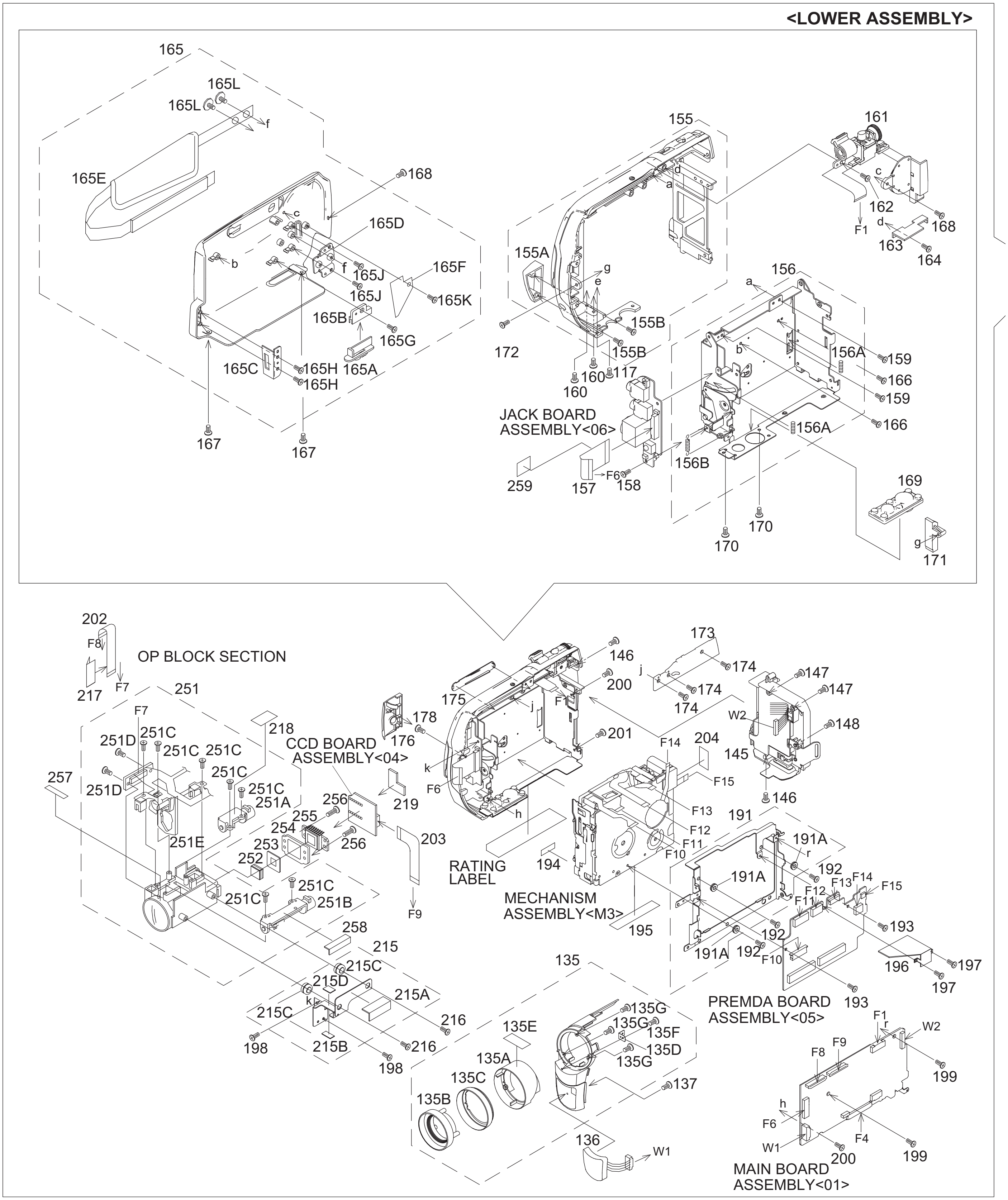
1. EXPLODED VIEW

1.1 PACKING AND ACCESSORY ASSEMBLY <M1>

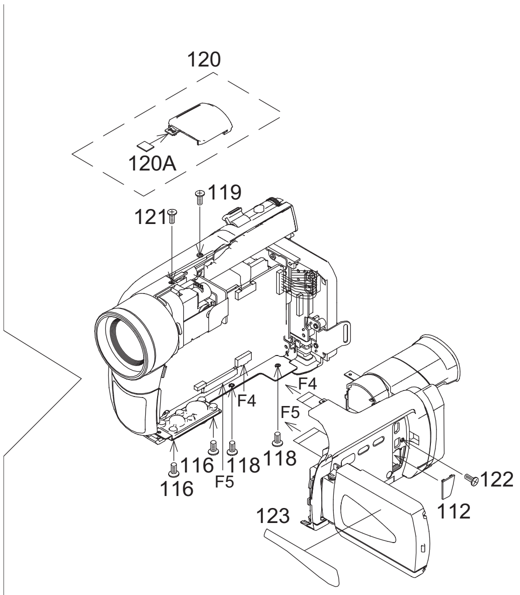
The instruction manual to be provided with this product will differ according to the destination.

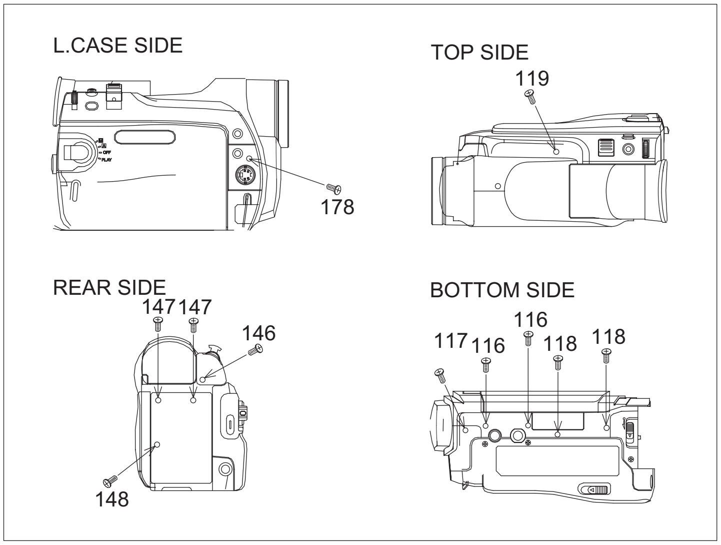

37
9
8
7
6
4
5
36
25
26
34
40
27
28
23
24
FINAL ASSEMBLY
<M2>
3
30
20
2
32
31
29
33
41
1
LABEL
(SERIAL)

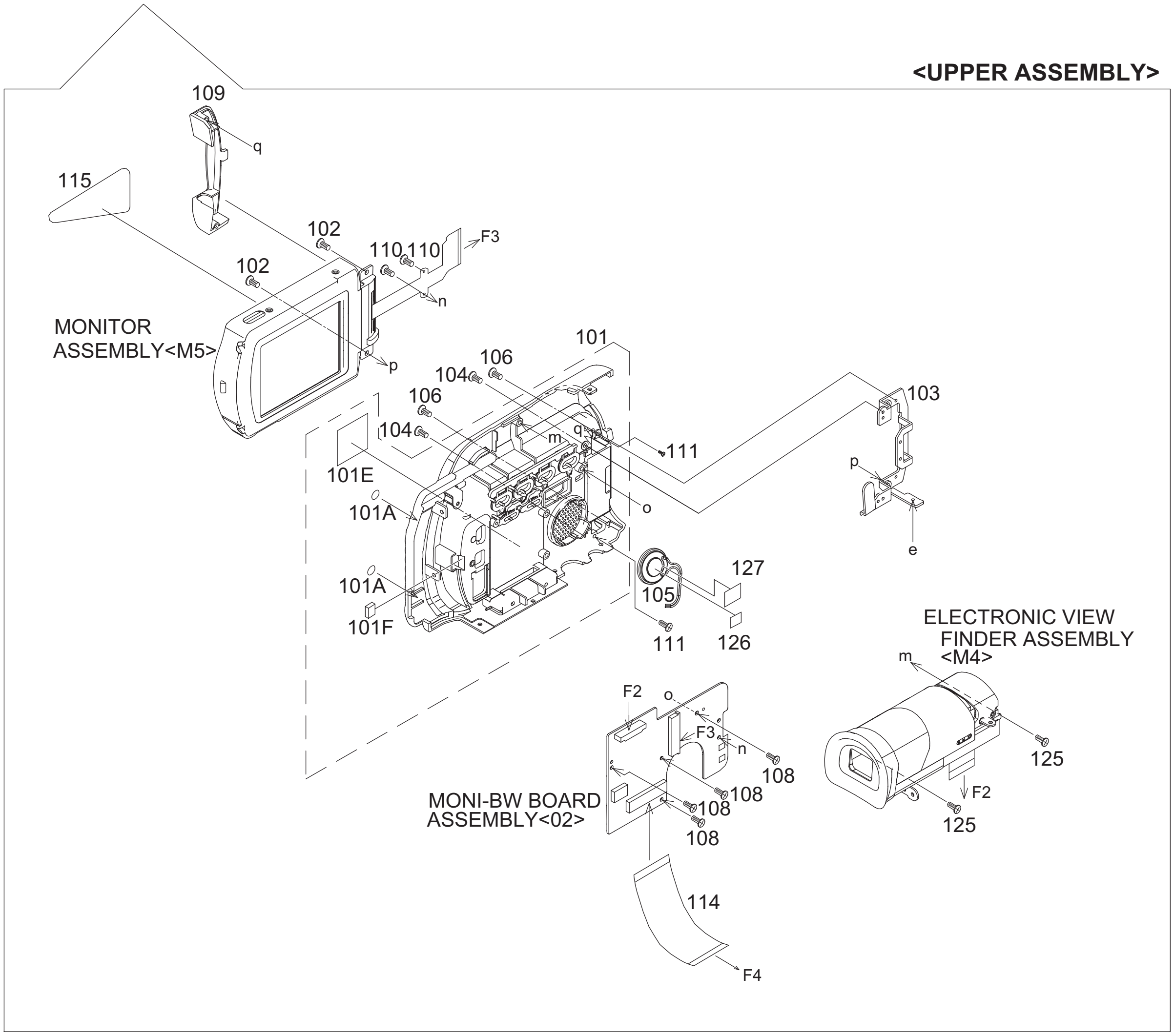
1.2 FINAL ASSEMBLY <M2>



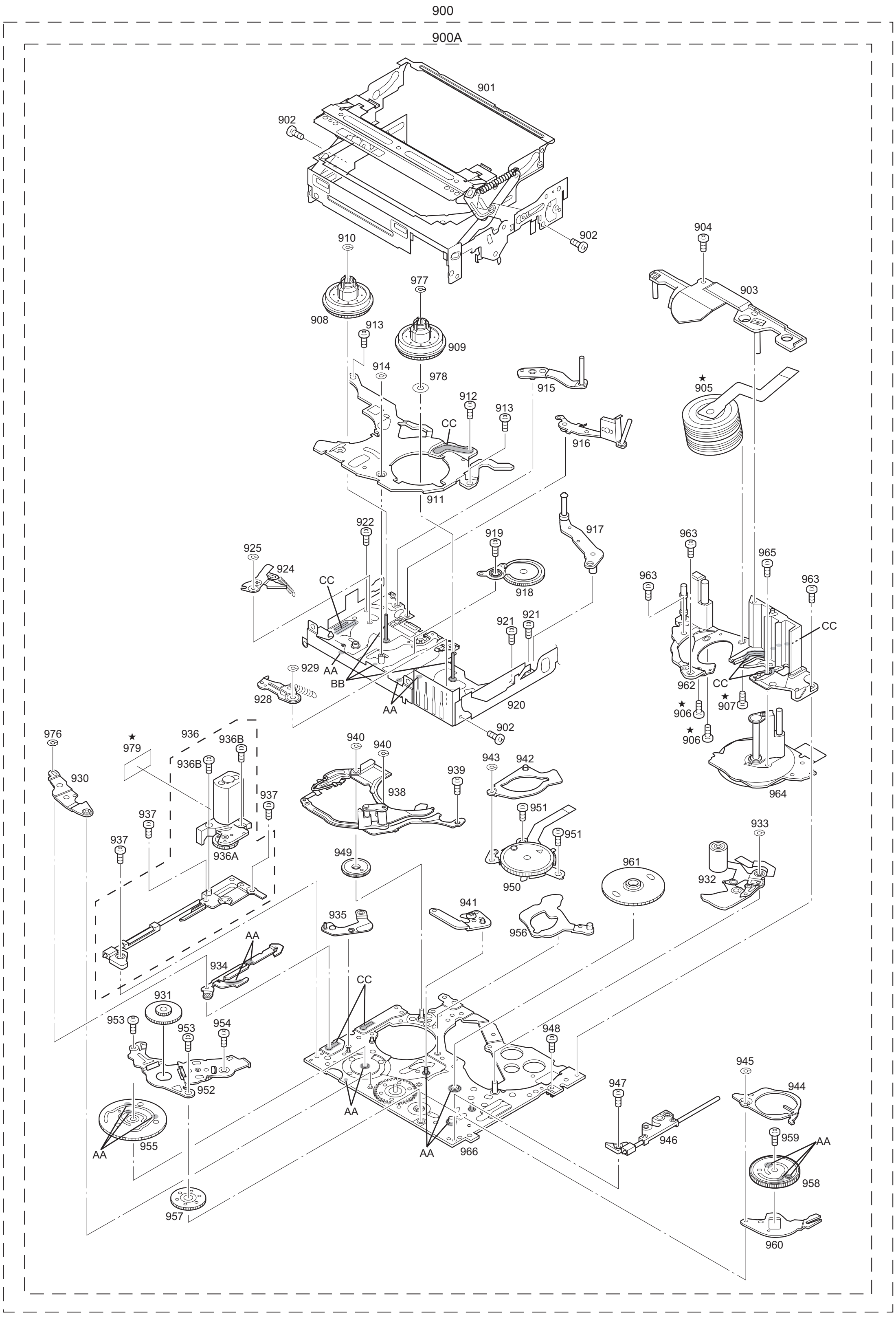
<LOWER ASSEMBLY>
165
165L
165L
f
165E
168
c
165D
b
f
165J
165F
165J
165K
165B
165G
165C
165H
165A
165H
167
167
155
161
d
a
c
162
F1
d
168
163
164
155A
g
e
156
a
155B
172
155B
b
156A
159
160
160
117
166
159
JACK BOARD
ASSEMBLY<06>
166
156A
156B
259
F6
157
158
169
170
170
g
171
202
F8
OP BLOCK SECTION
217
F7
251
F7
218
251D
251C
251C
251C
CCD BOARD
ASSEMBLY<04>
257
251D
251C
251C
251A
256
219
255
254
256
251E
253
203
252
251C
251C
251B
F9
258
215
215C
215D
215A
k
215C
216
198
215B
216
198
173
146
174
j
200
174
175
F1
j
174
178
176
201
k
F6
h
RATING
LABEL
194
MECHANISM
ASSEMBLY<M3>
195
147
147
W2
148
204
145
F14
F15
146
F13
F12
F11
F10
191
191A
r
191A
192
F13
F14
F12
F15
F11
193
192
191A
192
F10
196
197
197
193
PREMDA BOARD
ASSEMBLY<05>
135
135G
135G
135E
135F
135D
135A
135G
135C
137
135B
F1
r
W2
F8
F9
199
h
F6
W1
F4
136
W1
200
199
MAIN BOARD
ASSEMBLY<01>


F4
F4
F5
F5


L.CASE SIDE
TOP SIDE
REAR SIDE
BOTTOM SIDE


<UPPER ASSEMBLY>
109
q
115
102
110
110
F3
102
n
MONITOR
ASSEMBLY<M5>
p
101
106
104
106
104
m
q
111
103
p
101E
101A
o
e
127
101A
105
101F
111
126
ELECTRONIC VIEW
FINDER ASSEMBLY
<M4>
m
F2
o
F3
n
108
125
108
F2
MONI-BW BOARD
ASSEMBLY<02>
108
108
125
114
F4

1.3 MECHANISM ASSEMBLY <M3>

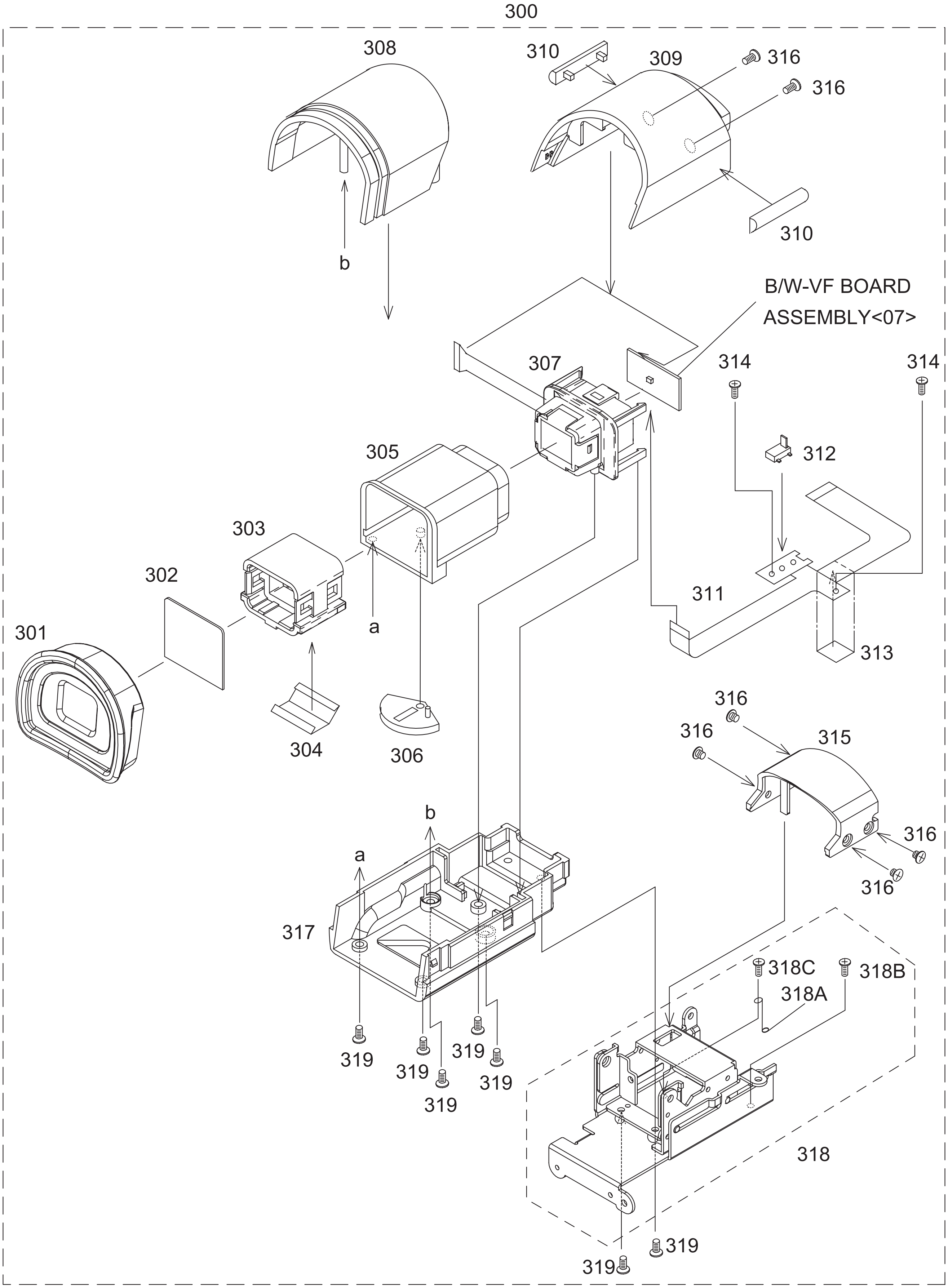

900
900A
901
902
902
910
977
904
903
908
913
909
914
978
915
★
905
912
913
CC
916
911
922
919
917
963
925
924
CC
918
965
963
963
921
921
CC
929
AA
BB
928
AA
920
962
CC
★
906
★
907
902
★
906
976
★
979
936
936B
936B
940
940
943
942
930
939
938
937
964
937
951
937
951
936A
933
949
961
932
950
941
935
956
AA
934
CC
931
953
953
954
948
945
952
947
944
AA
966
946
959
AA
AA
955
AA
958
957
960

Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	YTU94027	BB
Grease (HANARL)	RX-410R	CC

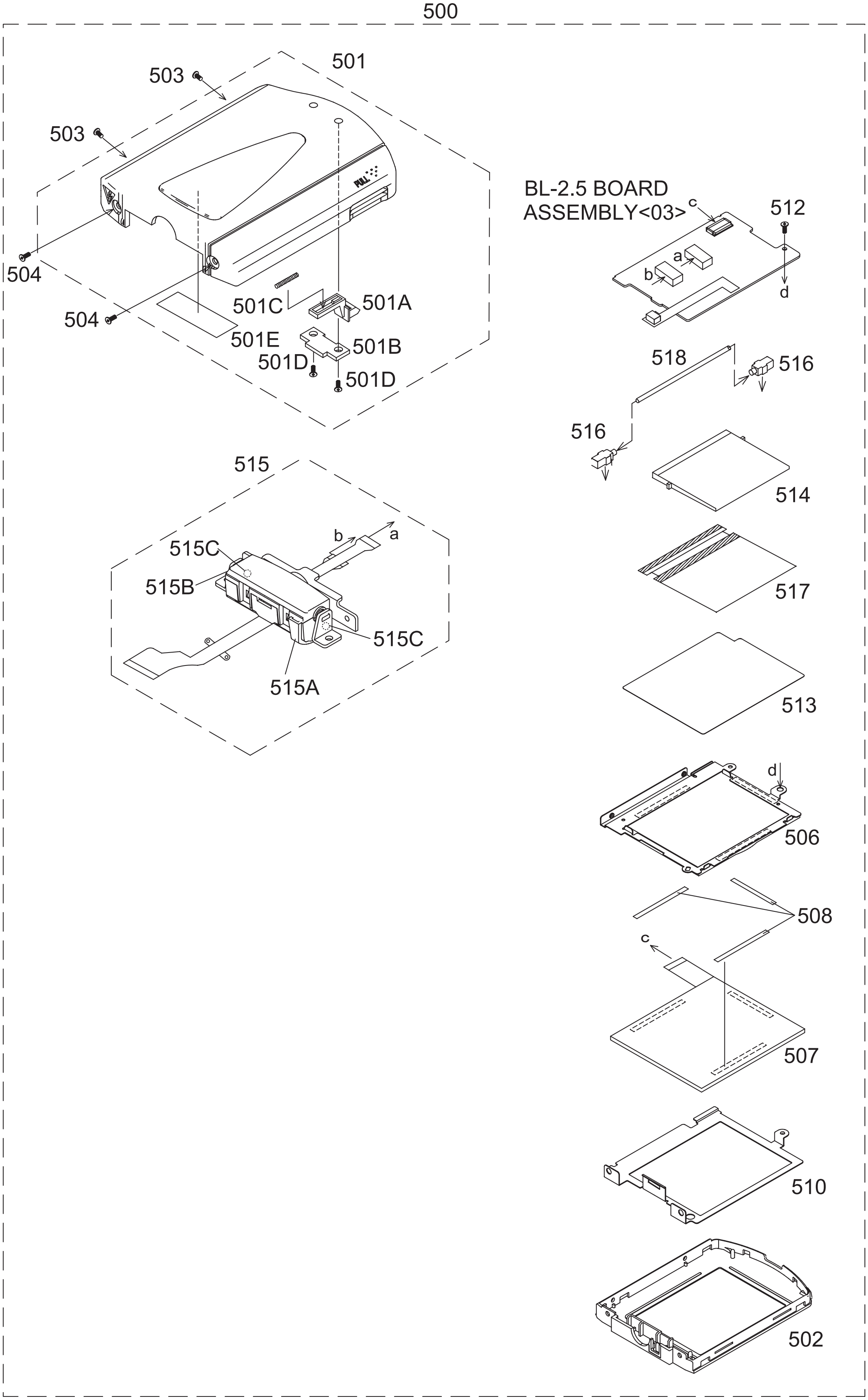
NOTE1: The section marked in **AA** and **BB**, **CC** indicate lubrication and greasing areas.

NOTE2: Mark ★ is not contained in 900A.

1.4 ELECTRONIC VIEWFINDER ASSEMBLY <M4>


300
308
310
309
316
316
310
b
B/W-VF BOARD
ASSEMBLY<07>
307
314
314
312
305
303
302
311
a
301
313
304
306
316
316
315
b
a
316
316
317
318C
318B
318A
319
319
319
319
319
318
319
319

1.5 MONITOR ASSEMBLY (2.5 INCH) <M5>


500
501
503
503
504
504
501C
501A
501E
501B
501D
501D
BL-2.5 BOARD ASSEMBLY<03>
c
512
a
b
d
518
516
516
514
515
b
a
515C
515B
515C
515A
517
513
d
506
508
c
507
510
502

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

2. PARTS LIST

PACKING AND ACCESSORY ASSEMBLY <M1>

⚠ Symbol No.	Part No.	Part Name	Description	Local
1	LY33063-012A	PACKING CASE		A,B,C,D
1	LY33063-015A	PACKING CASE		E
1	LY33063-003A	PACKING CASE		F,G,H,J
2	LY33065-001B	CUSHION		A,B,C,D,E,F,G
2	LY33065-001C	CUSHION		H,J
3	LY30023-027A	POLY BAG		
4	YQM30061-3	POLY BAG		A,E,F
4	QPA02003506	POLY BAG	20cm x 35cm	B,C,D,G,H,J
⚠ 5	LYT1134-001A	INST BOOK	(ENGLISH)	E
⚠ 5	LYT1098-001A	INST BOOK	(ENGLISH)	A,F
⚠ 5	LYT1098-003A	INST BOOK	(FRENCH)	B,G
⚠ 5	LYT1098-004A	INST BOOK	(DUTCH)	B,G
⚠ 5	LYT1098-005A	INST BOOK	(SPANISH)	B,G
⚠ 5	LYT1098-006A	INST BOOK	(ITALIAN)	B,G
⚠ 5	LYT1098-002A	INST BOOK	(GERMAN)	B,C,G,H
⚠ 5	LYT1098-007A	INST BOOK	(DANISH)	C,H
⚠ 5	LYT1098-008A	INST BOOK	(FINNISH)	C,H
⚠ 5	LYT1098-009A	INST BOOK	(SWEDISH)	C,H
⚠ 5	LYT1098-010A	INST BOOK	(NORWEGIAN)	C,H
⚠ 5	LYT1098-011A	INST BOOK	(RUSSIAN)	D,J
⚠ 5	LYT1098-012A	INST BOOK	(CZECH)	D,J
⚠ 5	LYT1098-013A	INST BOOK	(POLISH)	D,J
⚠ 5	LYT1098-014A	INST BOOK	(HUNGARIAN)	D,J
6	LYT1135-001A	INST BOOK	(SOFT.ENGLISH)	E
6	LYT1086-001A	INST BOOK	(SOFT.ENGLISH)	F
6	LYT1086-003A	INST BOOK	(SOFT.FRENCH)	G
6	LYT1086-004A	INST BOOK	(SOFT.DUTCH)	G
6	LYT1086-005A	INST BOOK	(SOFT.SPANISH)	G
6	LYT1086-006A	INST BOOK	(SOFT.ITALIAN)	G
6	LYT1086-002A	INST BOOK	(SOFT.GERMAN)	G,H
6	LYT1086-007A	INST BOOK	(SOFT.DANISH)	H
6	LYT1086-008A	INST BOOK	(SOFT.FINNISH)	H
6	LYT1086-009A	INST BOOK	(SOFT.SWEDISH)	H
6	LYT1086-010A	INST BOOK	(SOFT.NORWEGIAN)	H
6	LYT1086-011A	INST BOOK	(SOFT.RUSSIAN)	J
7	BT-54008-4	WARRANTY CARD		A,E,F
7	BT-54013-5	WARRANTY CARD		B,C,D,G,H,J
8	YU30878	REGIST. CARD		E,F
9	LYT0194-001B	Q.CARD(JUK)		A,E,F
20	QPA01703005	POLY BAG	17cm x 30cm	
23	QAM0451-001	USB CABLE		F,G,H,J
24	QQR0491-002	FERRITE CORE	TDK (BLACK)	F,G,H,J
25	QAM0212-001	A/V CABLE		
26	QQR0918-002	CORE FILTER		
⚠ 27	LY20955-001C	AC ADAPTER	AP-V13E	
⚠ 27	or LY20956-001B	AC ADAPTER	AP-V11E	
28	QQR0917-002	CORE FILTER		
⚠ 29	QMPP110-190-JR	POWER CORD(EK)	1.9m BLACK	A,E,F
⚠ 29	QMPL120-190-JR	POWER CORD(EU)	1.9m BLACK	B,C,D,G,H,J
30	QPA02503505P	POLY BAG	25cm x 35cm	
⚠ 31	LY32566-001A	BATT.PACK ASSY	BN-V408U-B	
32	LY20186-004A	SHOULDER STRAP		
33	LY21020-001A	REMOCON	RM-V718U	
34	QQR0491-002	FERRITE CORE	TDK (BLACK)	
36	LY44002-001B	CAP(HOOD)ASSY		
37	LY32210-059A	CD ROM ASSY		E
37	LY32210-048A	CD ROM ASSY		F,G,H,J
40	QQR0491-002	FERRITE CORE	TDK (BLACK)	
41	QAM0302-001	ADAPTOR PLUG		

FINAL ASSEMBLY <M2>

⚠ Symbol No.	Part No.	Part Name	Description	Local
101	LY20941-007J	U.CASE(2.5)ASSY		A,B,C,D,E
101	LY20941-003J	U.CASE(2.5)ASSY		F,G,H,J
101A	LY40664-001A	SPACER	(x2)	
101E	LY33042-001A	C.LABEL(VF)		
101F	LY30030-0F2A	SPACER(A)		
102	LY30018-0D6A	SPECIAL SCREW	(x2)	
103	LY33044-001D	BKT(HINGE2.5)		
104	LY30018-096A	SPECIAL SCREW	(x2)	
105	QAS0126-001	SPEAKER		
106	LY30018-017A	SPECIAL SCREW	(x2)	
108	LY30018-059A	SPECIAL SCREW	(x4)	
109	LY33049-002A	COVER(UPPER2.5)		
110	LY30018-056A	SPECIAL SCREW	(x2)	
111	LY30018-0E6A	SPECIAL SCREW	(x2)	
112	LY33050-002C	COVER(JIG)		
114	QUQ105-4007AA	FFC WIRE MONI CN761-MAIN CN101		
115	LY33033-001A	ORNAMENT(2.5 2)		A,B,C,D,E
115	LY33009-001A	ORNAMENT(2.5 1)		F,G,H,J
116	LY30018-0E6A	SPECIAL SCREW	(x2)	
117	LY30018-0A1A	SPECIAL SCREW		
118	LY30018-096A	SPECIAL SCREW	(x2)	
119	LY30018-096A	SPECIAL SCREW		
120	LY33025-001B	TOP COVER ASSY		
120A	LY40162-001A	BKT		
121	LY30018-096A	SPECIAL SCREW		
122	LY30018-096A	SPECIAL SCREW		
123	LY44187-006A	STICKER(2)		A,B,C,D,E
123	LY44187-004A	STICKER(2)		F,G,H,J
125	LY30018-0E6A	SPECIAL SCREW	(x2)	
126	LY30030-0E3B	SPACER(A)		
127	LY30030-0E5A	SPACER(A)		
135	LY20943-002E	F.COVER ASSY		
135A	LY33056-001B	HOOD		
135B	LY33057-001A	RING		
135C	LY33058-001A	HOOD(SCREW)		
135D	LY33059-001B	BKT(FRONT)		
135E	LY44186-002A	STICKER(1)		
135F	LY30018-0E6A	SPECIAL SCREW		
135G	LY30018-052A	SPECIAL SCREW	(x3)	
136	LY20944-001B	MIC		
137	LY30018-0G6A	SPECIAL SCREW		
⚠ 145	LY20938-001E	REAR UNIT		
146	LY30018-0G6A	SPECIAL SCREW	(x2)	
147	LY30018-0J1A	SPECIAL SCREW	(x2)	
148	LY30018-0H3A	SPECIAL SCREW		
155	LY20935-002E	LOWER CASE ASSY		
155A	LY33402-001A	COVER(LOWER)		
155B	LY30018-0E6A	SPECIAL SCREW	(x2)	
156	LY20939-001F	ARM ASSY		
156A	LY30002-046B	COMPRES. SPRING	(x2)	
156B	LY43973-001A	TENSION SPRING		
157	QUQ105-2203AA	FFC WIRE JACK CN501-MAIN CN102		
158	LY30018-096A	SPECIAL SCREW		
159	LY30018-059A	SPECIAL SCREW	(x2)	
160	LY30018-096A	SPECIAL SCREW	(x2)	
161	LY10453-001E	ZOOM UNIT		
162	LY30018-0E6A	SPECIAL SCREW		
163	LY33395-001A	BRACKET(ZOOM)		
164	LY30018-059A	SPECIAL SCREW		
165	LY20937-003B	C.COVER ASSY		
165A	LY33027-001B	KNOB(LOCK)		
165B	LY33028-001A	HOLDER(LOCK)		
165C	LY33397-001A	HOOK(G.B)		
165D	LY33039-001A	BKT(G.BELT)		
165E	LY20945-003A	GRIP BELT		
165F	LY44178-001A	SHEET(C.COV)		
165G	LY30018-0E6A	SPECIAL SCREW		
165H	QYSLSF2040D	TAP SCREW	2mm x 4mm(x2)	
165J	QYSLSF2040D	TAP SCREW	2mm x 4mm(x2)	
165K	QYSLSF2040D	TAP SCREW	2mm x 4mm	
165L	LY30018-0H1A	SPECIAL SCREW	(x2)	
166	LY30018-0K3A	SPECIAL SCREW	(x2)	
167	LY30018-096A	SPECIAL SCREW	(x2)	
168	LY30018-059A	SPECIAL SCREW	(x2)	
169	LY31019-001A	BASE		
170	LY30018-0E6A	SPECIAL SCREW	(x2)	
171	LY33396-001B	HOLDER(JACK)		
172	LY30018-0E6A	SPECIAL SCREW		
173	LY33037-001B	COVER(ZOOM)		
174	LY30018-084A	SPECIAL SCREW	(x3)	
175	LY33029-001B	COVER(ADJUST)		
176	LY33024-001C	COVER(JACK)		
178	LY30018-017A	SPECIAL SCREW		
191	LY33019-001B	BKT(MECHA)ASSY		

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
191A	LY42796-003A	BUSH	(x3)	
192	LY30019-028A	SPECIAL SCREW	(x3)	
193	LY30018-056A	SPECIAL SCREW	(x2)	
194	LY40699-002A	LABEL(PUSH)		
195	LY32001-002A	LABEL(HOUSING)		
196	LY33388-001C	SHIELD COVER(PR)		
197	QYSPSPT1414M	SCREW	1.4mm x 1.4mm(x2)	
198	LY30018-096A	SPECIAL SCREW	(x2)	
199	LY30019-038A	SPECIAL SCREW	(x2)	
200	LY30018-096A	SPECIAL SCREW	(x2)	
201	LY30018-017A	SPECIAL SCREW		
202	QUQ105-24X8AA	FPC WIRE OP BLOCK-MAIN CN108		
203	QAL0465-001	FPC CCD CN5001-MAIN CN107		
215	LY43965-001D	BKT(OP)ASSY		
215A	LY30030-095A	SPACER(A)		
215B	LY30030-096A	SPACER(A)		
215C	LY43966-001A	RUBBER(OP)	(x2)	
215D	LY30030-0E5A	SPACER(A)		
216	LY30018-0G9A	SPECIAL SCREW	(x2)	
217	LY30030-057A	SPACER(A)		
218	LY30030-050A	SPACER(A)		
219	LY30030-060A	SPACER(A)		
251	LY33085-001F	OP BLOCK ASSY		
251A	LY30724-001B	FOCUS MOTOR		
251B	LY30723-001B	ZOOM MOTOR		
251C	PTY33085-001	SCREW	(x7)	
251D	PTY31727-116	SCREW	(x2)	
251E	PTY33085-007	IRIS MOTOR UNIT		
252	LY44120-001A	OP LPF		
253	LY44005-001A	SHEET		
254	LY33288-001A	SPACER		
255	LYH30446-002A	CCD BASE ASSY		
256	LY30018-0E7A	SPECIAL SCREW	(x2)	
257	LY30030-093A	SPACER(A)		
258	LY30030-094A	SPACER(A)		
259	LY30029-0Q7A	SPACER(A)		

MECHANISM ASSEMBLY <M3>

⚠ Symbol No.	Part No.	Part Name	Description	Local
900	YMA0029H	MECHA(A)ASSY		
900A	YMA0029D	MECHA(A)ASSY		
901	LY32870-001G	CASSETTEHOUSING ASSY		
902	YQ43893-8	MINI SCREW	(x3)	
903	LYH30420-001A	UPPER BASE ASSY		
904	QYSPSPU1425M	SCREW		
905	YDV2102B	DRUM ASSY		
906	LY42820-001A	DAMP.SCREW ASSY	(x2)	
907	LY42820-002A	DAMP.SCREW ASSY		
908	LY31538-001F	REEL DISK ASSY		
909	LY31538-002H	REEL DISK ASSY		
910	YQ44246	SLIT WASHER		
911	LY10372-001D	REEL COVER ASSY		
912	LY42120-002A	MINI SCREW		
913	LY41945-003A	MINI SCREW	(x2)	
914	YQ44246	SLIT WASHER		
915	LY43725-001D	TENSION ARM ASSY		
916	LYH40269-001A	SLANT POLE ARM ASSY		
917	LY43731-001F	TU ARM ASSY		
918	LY31531-001D	SWING ARM ASSY		
919	YQ43893	MINI SCREW		
920	LYH30424-001A	SLIDE DECK FINAL ASSY		
921	YQ43893	MINI SCREW	(x2)	
922	LY43023-001A	MINI SCREW		
924	LYH30419-001A	PAD ARM ASSY		
925	YQ44246	SLIT WASHER		
928	LYH40270-001A	TU BRAKE ASSY		
929	YQ44246	SLIT WASHER		
930	LY43684-001A	TENSION CONTROL LEVER ASSY		
931	LY32861-001A	CENTER GEAR		
932	LY31516-001F	PINCH ROLLER ARM FINAL ASSY		
933	YQ44246	SLIT WASHER		
934	LY43681-001A	TENSION CONTROL PLATE ASSY		
935	LY43687-001A	BRAKE CONTROL LEVER ASSY		
936	LYH30421-001A	MOTOR BRACKET ASSY		
936A	QAR0138-001	LOADING MOTOR		
936B	LY41940-001A	TAPPING SCREW	(x2)	
937	YQ43893	MINI SCREW	(x3)	
938	LYH30422-001A	GUIDE RAIL ASSY		
939	YQ43893	MINI SCREW		
940	YQ44246	SLIT WASHER	(x2)	
941	LY32843-001A	SLIDE LEVER2 ASSY		
942	LY43690-001A	LOADING PLATE ASSY		
943	YQ44246	SLIT WASHER		
944	LY32858-001A	EJECT LEVER		
945	YQ44246	SLIT WASHER		
946	LYH40271-001A	BASE R ASSY		
947	YQ43893	MINI SCREW		
948	LY41945-001B	MINI SCREW		
949	LY43665-001A	MODE GEAR		
950	QSW0876-003	ROTARY ENCODER		
951	YQ43893	MINI SCREW	(x2)	
952	LY32860-001A	GEAR COVER ASSY		
953	YQ43893	MINI SCREW	(x2)	
954	YQ43893-4	MINI SCREW		
955	LY43676-001A	MAIN CAM ASSY		
956	LY41941-001B	SLIDE ARM ASSY		
957	LY43678-001A	CONNECT GEAR 2		
958	LY41954-001C	SUB CAM ASSY		
959	LY42120-001A	MINI SCREW		
960	LY43692-001A	CONTROL ARM ASSY		
961	LY32859-001A	REEL GEAR 1		
962	LY31508-002B	DRUM BASE ASSY		
963	QYSPSPU1425M	SCREW	1.4mm x 2.5mm(x3)	
964	QAR0142-001	CAPSTAN MOTOR		
965	YQ43893	MINI SCREW		
966	LY10367-001D	MAIN DECK ASSY		
976	YQ44246	SLIT WASHER		
977	YQ44246-6	SLIT WASHER		
978	LY42047-005A	WASHER		
979	LY43987-001B	SPACER		

ELECTRONIC VIEWFINDER ASSEMBLY<M4>

⚠ Symbol No.	Part No.	Part Name	Description	Local
300	LY21043-001E	VF ASSY		
301	LY32995-001B	EYE CUP		
302	LY43961-001B	SHEET(LENS)		
303	LY32472-001A	LENS ASSY		
304	LY43868-001A	SPRING(LENS)		
305	LY32993-001C	GUIDE LENS(VF)		
306	LY33006-001C	LEVER(LENS)		
307	LY33442-001B	LCD UNIT ASSY		
308	LY20931-001B	U.CASE(VF)R		
309	LY20930-001B	U.CASE(VF)F		
310	LY33083-001A	PROTECTOR(VF)	(x2)	
311	QAL0466-002	FPC		
312	NSW0200-001X	LEVER SWITCH VF SW		
313	LY30030-059B	SPACER(A)		
314	LY30018-031A	SPECIAL SCREW	(x2)	
315	LY32996-001B	COVER(VF)		
316	LY30018-022A	SPECIAL SCREW	(x6)	
317	LY20929-001C	B.CASE(VF)		
318	LY33076-001E	VF HINGE ASSY		
318A	LY43962-001C	TOR.SPRING		
318B	LY30019-048A	SPECIAL SCREW		
319	LY30018-084A	SPECIAL SCREW	(x7)	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

MONITOR ASSEMBLY (2.5 INCH) <M5>

⚠ Symbol No.	Part No.	Part Name	Description	Local
500	LY21042-004B	MONITOR ASSY		
501	LY20932-003E	M.COVER(2.5)ASSY		
501A	LY33007-001C	KNOB(LOCK)M		
501B	LY33008-001A	HOLDER(LOCK)M		
501C	LY30002-047A	COMPRES. SPRING		
501D	LY30018-0C8A	SPECIAL SCREW	(x2)	
501E	LY30030-0E5A	SPACER(A)		
502	LY10407-001C	MONI.CASE(2.5)		
503	QYSPSPT1730R	SCREW	1.7mm x 3mm(x2)	
504	LY30018-0K9A	SPECIAL SCREW	(x2)	
506	LY33011-001C	LCD FRAME(2.5)		
507	QLD0262-001	LCD MODULE		
508	LY30029-0R5A	SPACER(A)	(x3)	
510	LY33010-001A	SHIELD CASE(2.5)		
512	QYSPSPT1720R	SCREW	1.7mm x 2mm	
513	LY33012-001A	DIFF.SHEET(2.5)		
514	LY43938-001A	LIGHT SCREEN		
515	LY33013-003B	MONI.HINGE ASSY		
515A	LY33015-002A	HINGE COVER(U)		
515B	LY32969-002A	HINGE COVER(L)		
515C	LY30018-0K1A	SPECIAL SCREW	(x2)	
516	LY43936-001A	HOLDER(LAMP)	(x2)	
517	LY43396-001A	SHEET(REFLECT)		
518	QLL0142-001	LAMP		

MAIN BOARD ASSEMBLY <01>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB10404J-02	MAIN BOARD ASSY		A,B,C,D,E
PW1	YB10404K-02	MAIN BOARD ASSY		F,G,H,J
IC1001	MN103S33NJD	IC(MICRO C ROM)		
IC1001 or	MN103SF33NY4JD	IC(MICRO C ROM)		
IC1002	MB90097PFV149-X	IC(MICRO C ROM)		
IC1003	SN74AHC1G00K-X	IC		
IC1003 or	SN74AHC1G00DC-X	IC		
IC1004	S-89220ACNC-W	IC		
IC1005	X25330S8I-2.5-X	IC		
IC1005 or	AT25320N-10SI-X	IC		
IC1005 or	M95320-WMN6-X	IC		
IC1005 or	25LC320-I/SN-X	IC		
IC1005 or	CAT25C32SI-X	IC		
IC1006	RS5C314-X	IC		
IC1007	IC-PST3423U-X	IC		
IC1007 or	S-80823CNNB-X	IC		
IC2101	AK5355VT-X	IC		F,G,H,J
IC2201	AK4564VQ	IC		
IC3001	JCY0152	IC		
IC3002	BU2501FV-X	IC		
IC3005	JCY0136-X	IC		
IC3701	BA7665FS-X	IC		
IC3851	JCP8055FP	IC		
IC4201	HD49340NP-X	IC		
IC4202	MM1613AN-X	IC		
IC4301	JCY0200	IC		
IC4302	R1160N151B-X	IC		
IC4802	BA10358FVM-W	IC		
IC4803	BA10358FVM-W	IC		
IC4804	UPC358G2/5/-W	IC		
IC4851	UPD16879GS-X	IC		
IC5501	JCY0185	IC		
IC6001	FA3698F	IC		
IC6801	R1224N102G-X	IC		
IC8701	PIX-MC10	IC		F,G,H,J
IC8702	MT48LC1M16TG-6S	IC		F,G,H,J
Q1001	DTA114EE-X	DIGI TRANSISTOR		
Q1001 or	PDTA114EE-X	DIGI TRANSISTOR		
Q1001 or	RN2102-X	DIGI TRANSISTOR		
Q1001 or	BCR183T-X	DIGI TRANSISTOR		
Q1002	UMC3N-W	DIGI TRANSISTOR		
Q1003	UMC3N-W	DIGI TRANSISTOR		
Q1004	UMC3N-W	DIGI TRANSISTOR		
Q1005	DTC143XE-X	DIGI TRANSISTOR		
Q1006	UMC3N-W	DIGI TRANSISTOR		
Q1007	2SC4617/QR/-X	TRANSISTOR		
Q1007 or	BC847BT-X	TRANSISTOR		
Q1008	DTC124EE-X	DIGI TRANSISTOR		
Q1008 or	PDTC124EE-X	DIGI TRANSISTOR		
Q1008 or	BCR141T-X	DIGI TRANSISTOR		
Q1009	2SJ347-X	MOS FET		
Q2001	UMX1N-W	PAIR TRANSISTOR		
Q2001 or	BC847S-X	PAIR TRANSISTOR		
Q2002	UMX1N-W	PAIR TRANSISTOR		
Q2002 or	BC847S-X	PAIR TRANSISTOR		
Q2003	UMX1N-W	PAIR TRANSISTOR		
Q2003 or	BC847S-X	PAIR TRANSISTOR		
Q2004	UMX1N-W	PAIR TRANSISTOR		
Q2004 or	BC847S-X	PAIR TRANSISTOR		
Q2005	UMX1N-W	PAIR TRANSISTOR		
Q2005 or	BC847S-X	PAIR TRANSISTOR		
Q2006	UMX1N-W	PAIR TRANSISTOR		
Q2006 or	BC847S-X	PAIR TRANSISTOR		
Q2202	UMX1N-W	PAIR TRANSISTOR		
Q2202 or	BC847S-X	PAIR TRANSISTOR		
Q2401	2SC4617/QR/-X	TRANSISTOR		
Q2401 or	BC847BT-X	TRANSISTOR		
Q2403	2SC4617/QR/-X	TRANSISTOR		
Q2403 or	BC847BT-X	TRANSISTOR		
Q3001	2SC4617/RS/-X	TRANSISTOR		
Q3001 or	BC847BT-X	TRANSISTOR		
Q3002	2SC4617/RS/-X	TRANSISTOR		
Q3002 or	BC847BT-X	TRANSISTOR		
Q3701	UMT1N-W	PAIR TRANSISTOR		

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
Q3701 or	XP4401-W	TRANSISTOR		
Q3701 or	BC856S-X	PAIR TRANSISTOR		
Q3702	UMZ1N-W	PAIR TRANSISTOR		
Q3702 or	XP4601-W	TRANSISTOR		
Q3704	2SA1774/RS/-X	TRANSISTOR		
Q3704 or	BC857BT-X	TRANSISTOR		
Q3705	UMT1N-W	PAIR TRANSISTOR		
Q3705 or	XP4401-W	TRANSISTOR		
Q3705 or	BC856S-X	PAIR TRANSISTOR		
Q4801	2SC4655/BC/-X	TRANSISTOR		
Q4806	2SC4617/QR/-X	TRANSISTOR		
Q4806 or	BC847BT-X	TRANSISTOR		
Q4851	2SC4617/RS/-X	TRANSISTOR		
Q4851 or	BC847BT-X	TRANSISTOR		
Q6101	SSM5G01TU-X	MOS FET		
Q6102	2SA1577/QR/-X	TRANSISTOR		
Q6102 or	BC807-25W-X	TRANSISTOR		
Q6201	SSM5G01TU-X	MOS FET		
Q6301	SSM5G01TU-X	MOS FET		
Q6302	2SA1577/QR/-X	TRANSISTOR		
Q6302 or	BC807-25W-X	TRANSISTOR		
Q6303	2SC4617/QR/-X	TRANSISTOR		
Q6303 or	BC847BT-X	TRANSISTOR		
Q6401	SSM5G01TU-X	MOS FET		
Q6501	SSM5G01TU-X	MOS FET		
Q6601	CPH3314-X	MOS FET		
Q6602	UMX1N-W	PAIR TRANSISTOR		
Q6602 or	HN1C01FU/G/-X	PAIR TRANSISTOR		
Q6602 or	BC847S-X	PAIR TRANSISTOR		
Q6603	2SA1577/QR/-X	TRANSISTOR		
Q6603 or	BC807-25W-X	TRANSISTOR		
Q6604	DTC144EE-X	DIGI TRANSISTOR		
Q6604 or	BCR148T-X	DIGI TRANSISTOR		
Q6605	UMT1N-W	PAIR TRANSISTOR		
Q6605 or	HN1A01FU/G/-X	PAIR TRANSISTOR		
Q6605 or	BC856S-X	PAIR TRANSISTOR		
Q6606	2SC4617/QR/-X	TRANSISTOR		
Q6606 or	BC847BT-X	TRANSISTOR		
Q6701	CPH3314-X	MOS FET		
Q6801	FML9-W	TRANSISTOR		
D1001	DA221-X	DIODE ARRAY		
D3001	EC2C01C-X	VARI CAP DIODE		
D3002	EC2C01C-X	VARI CAP DIODE		
D3003	EC2C01C-X	VARI CAP DIODE		
D3004	MA2Z720-X	SB DIODE		
D5501	1SS355-X	SI DIODE		
D6601	RB481K-X	SB DIODE		
D6602	RB480Y-W	SB DIODE		
D6701	RB160M-30-X	SB DIODE		
D6702	RB160M-30-X	SB DIODE		
⚠ D6801	RB715F-X	SB DIODE		
D8702	EMZ6.8N-X	Z DIODE		F,G,H,J
D8703	EMZ6.8N-X	Z DIODE		F,G,H,J
C1001	NDCA1HJ-8R0W	C CAPACITOR	8pF 50V J	
C1002	NDCA1HJ-100W	C CAPACITOR	10pF 50V J	
C1004	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1005	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1007	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1008	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1009	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1010	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1011	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1012	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1013	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1014	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1015	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1019	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1020	NCBA1EK-682W	C CAPACITOR	6800pF 25V K	
C1021	NCBA1EK-682W	C CAPACITOR	6800pF 25V K	
C1022	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1024	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1025	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1029	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1030	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C1032	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1035	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	

⚠ Symbol No.	Part No.	Part Name	Description	Local
C1036	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1037	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1038	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1039	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1040	NDCA1HJ-100W	C CAPACITOR	10pF 50V J	
C1041	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1042	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1043	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1044	NDCA1HJ-470W	C CAPACITOR	47pF 50V J	
C1045	NDCA1HJ-470W	C CAPACITOR	47pF 50V J	
C1046	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C1047	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1048	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1049	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1050	NCFA1HZ-103W	C CAPACITOR	0.01uF 50V Z	
C1051	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C1052	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C1053	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C1054	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C1055	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C1064	NBE20JM-226X	TA E CAPACITOR	22uF 6.3V M	
C2105	NCBA1HK-222W	C CAPACITOR	2200pF 50V K	F,G,H,J
C2106	NCBA1HK-222W	C CAPACITOR	2200pF 50V K	F,G,H,J
C2107	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	F,G,H,J
C2108	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C2109	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C2110	NBE20JM-475X	TA E CAPACITOR	4.7uF 6.3V M	F,G,H,J
C2201	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2202	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2203	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2204	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2205	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2209	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2210	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2211	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2212	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2213	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2214	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2215	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2216	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2217	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2218	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2223	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2224	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2401	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2402	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2403	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2404	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2405	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2406	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2603	NCBA1CK-153W	C CAPACITOR	0.015uF 16V K	
C2604	NCBA1CK-153W	C CAPACITOR	0.015uF 16V K	
C2605	NCBA1EK-472W	C CAPACITOR	4700pF 25V K	
C2606	NCBA1EK-472W	C CAPACITOR	4700pF 25V K	
C2607	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C2608	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C2611	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2612	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2613	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2614	NDCA1HJ-101W	C CAPACITOR	100pF 50V J	
C2615	NDCA1HJ-101W	C CAPACITOR	100pF 50V J	
C3001	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3003	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3005	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3006	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3007	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C3008	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3009	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3011	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3012	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3013	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3015	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3016	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3017	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3020	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3021	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3022	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3023	NDCA1HJ-330W	C CAPACITOR	33pF 50V J	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
C3024	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C3025	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3026	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3027	NCBA1EK-472W	C CAPACITOR	4700pF 25V K	
C3028	NDCA1EJ-271W	C CAPACITOR	270pF 25V J	
C3029	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3030	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3031	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3032	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C3033	NDCA1HJ-220W	C CAPACITOR	22pF 50V J	
C3036	NDCA1HJ-8R0W	C CAPACITOR	8pF 50V J	
C3037	NDCA1HJ-8R0W	C CAPACITOR	8pF 50V J	
C3038	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3039	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3042	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3043	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3044	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3045	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3046	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3047	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3048	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C3049	NCBA1HK-222W	C CAPACITOR	2200pF 50V K	
C3050	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3055	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3059	NBE20GM-226X	TA E CAPACITOR	22uF 4V M	
C3060	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3064	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C3066	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3067	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C3069	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3701	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3702	NDCA1HJ-560W	C CAPACITOR	56pF 50V J	
C3703	NDCA1HJ-270W	C CAPACITOR	27pF 50V J	
C3704	NDCA1HJ-680W	C CAPACITOR	68pF 50V J	
C3705	NDCA1HJ-270W	C CAPACITOR	27pF 50V J	
C3706	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3707	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3708	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3709	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3712	NEA70GM-337X	E CAPACITOR	330uF 4V M	
C3713	NEA70GM-337X	E CAPACITOR	330uF 4V M	
C3715	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3801	NCB21AK-105X	C CAPACITOR	1uF 10V K	
C3802	NCB21AK-105X	C CAPACITOR	1uF 10V K	
C3803	NBE20GM-476X	TA E CAPACITOR	47uF 4V M	
C3804	NBE20GM-476X	TA E CAPACITOR	47uF 4V M	
C3851	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3852	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3853	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3854	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3855	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3856	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3857	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3858	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3859	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3860	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3861	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4201	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C4202	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4203	NCB21AK-105X	C CAPACITOR	1uF 10V K	
C4204	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4205	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4206	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C4207	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4208	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C4209	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4210	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4211	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4212	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4213	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4214	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4216	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4301	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4302	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4303	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4304	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4305	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4306	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4307	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4308	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4309	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4310	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4311	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4312	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4313	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C4314	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4315	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4316	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4317	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4803	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C4804	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4806	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4808	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C4809	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4810	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4811	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4812	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4813	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4814	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4815	NCB31HK-152X	C CAPACITOR	1500pF 50V K	
C4819	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C4851	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C4852	NCFA1AZ-104W	C CAPACITOR	0.1uF 10V Z	
C4853	NBE21AM-335X	TA E CAPACITOR	3.3uF 10V M	
C4854	NBE21AM-106X	TA E CAPACITOR	10uF 10V M	
C4855	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C4858	NDCA1HJ-330W	C CAPACITOR	33pF 50V J	
C4859	NCBA1CK-223W	C CAPACITOR	0.022uF 16V K	
C4860	NCBA1CK-223W	C CAPACITOR	0.022uF 16V K	
C4861	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4862	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4864	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C4865	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5501	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5503	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5504	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5506	NBE40GM-476X	TA E CAPACITOR	47uF 4V M	
C5507	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5508	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5509	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5510	NBP21VM-105X	TA E CAPACITOR	1uF 35V M	
C5511	NBZ0003-475X	TA E CAPACITOR	4.7uF 20V M	
C5512	NBE21AM-106X	TA E CAPACITOR	10uF 10V M	
C5513	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5514	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5515	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5516	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5517	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5518	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C5519	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C6002	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6003	NEA71CM-106X	E CAPACITOR	10uF 16V M	
C6004	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6021	NCB21CK-104X	C CAPACITOR	0.1uF 16V K	
C6022	NCB21CK-104X	C CAPACITOR	0.1uF 16V K	
C6023	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6024	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6025	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6026	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6027	NCBA1EK-472W	C CAPACITOR	4700pF 25V K	
C6029	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6030	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6031	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6032	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6033	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C6034	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C6035	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C6036	NDCA1HJ-101W	C CAPACITOR	100pF 50V J	
C6037	NCB21CK-473X	C CAPACITOR	0.047uF 16V K	
C6038	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C6039	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C6040	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C6041	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C6042	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C6043	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C6044	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
C6045	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6101	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6103	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C6104	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6105	NCBA1HK-561W	C CAPACITOR	560pF 50V K	
C6106	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6201	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6203	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C6204	NCBA1EK-472W	C CAPACITOR	4700pF 25V K	
C6301	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6303	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C6304	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6401	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6403	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6405	NCB31CK-683X	C CAPACITOR	0.068uF 16V K	
C6501	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6503	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6505	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6601	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6602	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6603	NCB11EK-105X	C CAPACITOR	1uF 25V K	
C6605	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6606	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6607	NCB11EK-105X	C CAPACITOR	1uF 25V K	
C6608	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C6609	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6701	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6703	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6801	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6802	NBE40JM-476X	TA E CAPACITOR	47uF 6.3V M	
C6804	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6807	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C6809	NDCA1HJ-151W	C CAPACITOR	150pF 50V J	
C8701	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	F,G,H,J
C8702	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	F,G,H,J
C8703	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8704	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8705	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8706	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8707	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8708	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8709	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8710	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8711	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8712	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
C8719	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	F,G,H,J
R1001	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R1002	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1003	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1006	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1007	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R1008	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1009	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1010	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R1011	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1012	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1013	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1014	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1015	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1016	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1017	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R1018	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R1019	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1020	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1021	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1022	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1023	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1024	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1025	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1027	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R1030	NRSA6AJ-753W	MG RESISTOR	75kΩ 1/16W J	
R1031	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	
R1032	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1033	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1034	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1035	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1037	NRSA6AJ-561W	MG RESISTOR	560Ω 1/16W J	
R1038	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1039	NRSA6AJ-152W	MG RESISTOR	1.5kΩ 1/16W J	
R1040	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1041	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R1042	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R1043	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1044	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1045	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R1046	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1047	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1048	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1049	NRSA6AJ-623W	MG RESISTOR	62kΩ 1/16W J	
R1050	NRSA6AJ-823W	MG RESISTOR	82kΩ 1/16W J	
R1051	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R1052	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1053	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R1054	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1055	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	
R1056	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	
R1057	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1058	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1059	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1060	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1061	NRSA6AJ-561W	MG RESISTOR	560Ω 1/16W J	
R1062	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	
R1063	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R1064	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1065	NRSA6AJ-153W	MG RESISTOR	15kΩ 1/16W J	
R1066	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1067	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	
R1068	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1069	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1070	NRSA6AJ-154W	MG RESISTOR	150kΩ 1/16W J	
R1071	NRSA6AJ-272W	MG RESISTOR	2.7kΩ 1/16W J	
R1072	NRSA6AJ-183W	MG RESISTOR	18kΩ 1/16W J	
R1073	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1074	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R1075	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R1076	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R1077	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1078	NRSA6AJ-393W	MG RESISTOR	39kΩ 1/16W J	
R1079	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R1080	NRSA6AJ-822W	MG RESISTOR	8.2kΩ 1/16W J	
R1081	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1082	NRSA6AJ-123W	MG RESISTOR	12kΩ 1/16W J	
R1083	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1084	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1085	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1086	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1087	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1088	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1089	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R1091	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1092	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1093	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1094	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1095	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R1096	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1097	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R1099	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R2001	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2002	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2003	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2004	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2005	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2006	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2007	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2008	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2009	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2010	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2011	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2012	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R2101	NRSA6AJ-471W	MG RESISTOR	470Ω 1/16W J	F,G,H,J
R2102	NRSA6AJ-471W	MG RESISTOR	470Ω 1/16W J	F,G,H,J
R2105	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R2107	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R2108	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R2109	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
R2110	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R2201	NRSA6AJ-684W	MG RESISTOR	680kΩ 1/16W J	
R2202	NRSA6AJ-564W	MG RESISTOR	560kΩ 1/16W J	
R2203	NRSA6AJ-393W	MG RESISTOR	39kΩ 1/16W J	
R2204	NRSA6AJ-154W	MG RESISTOR	150kΩ 1/16W J	
R2206	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R2207	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R2208	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R2209	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R2210	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2211	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2212	NRSA6AJ-2R7W	MG RESISTOR	2.7Ω 1/16W J	
R2213	NRSA6AJ-2R7W	MG RESISTOR	2.7Ω 1/16W J	
R2217	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R2218	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R2219	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2220	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2221	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2222	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R2223	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R2224	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R2225	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2226	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2229	NRSA6AJ-564W	MG RESISTOR	560kΩ 1/16W J	
R2230	NRSA6AJ-564W	MG RESISTOR	560kΩ 1/16W J	
R2231	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R2401	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R2402	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R2403	NRSA6AJ-183W	MG RESISTOR	18kΩ 1/16W J	
R2406	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R2407	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R2601	NRSA6AJ-182W	MG RESISTOR	1.8kΩ 1/16W J	
R2602	NRSA6AJ-182W	MG RESISTOR	1.8kΩ 1/16W J	
R2607	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R2608	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R2609	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R2610	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R3002	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3004	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3005	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R3006	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R3007	NRSA6AJ-562W	MG RESISTOR	5.6kΩ 1/16W J	
R3008	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R3009	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3010	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3011	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	
R3013	NRSA6AJ-242W	MG RESISTOR	2.4kΩ 1/16W J	
R3014	NRSA6AJ-392W	MG RESISTOR	3.9kΩ 1/16W J	
R3015	NRSA6AJ-392W	MG RESISTOR	3.9kΩ 1/16W J	
R3016	NRVA6AD-560W	CMF RESISTOR	56Ω 1/16W D	
R3017	NRVA6AD-560W	CMF RESISTOR	56Ω 1/16W D	
R3018	NRVA6AD-560W	CMF RESISTOR	56Ω 1/16W D	
R3019	NRVA6AD-560W	CMF RESISTOR	56Ω 1/16W D	
R3020	NRVA6AD-512W	CMF RESISTOR	5.1kΩ 1/16W D	
R3021	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R3025	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R3027	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3029	NRSA6AJ-822W	MG RESISTOR	8.2kΩ 1/16W J	
R3030	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	
R3031	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	
R3032	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R3034	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R3036	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3037	NRSA6AJ-681W	MG RESISTOR	680Ω 1/16W J	
R3057	NRSA6AJ-151W	MG RESISTOR	150Ω 1/16W J	
R3066	NRSA6AJ-561W	MG RESISTOR	560Ω 1/16W J	
R3067	NRSA6AJ-561W	MG RESISTOR	560Ω 1/16W J	
R3068	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3069	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R3071	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R3074	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3081	NRSA6AJ-471W	MG RESISTOR	470Ω 1/16W J	F,G,H,J
R3082	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	A,B,C,D,E
R3083	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R3701	NRSA6AD-271W	MG RESISTOR	270Ω 1/16W D	
R3702	NRSA6AD-271W	MG RESISTOR	270Ω 1/16W D	
R3703	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R3704	NRSA6AD-301W	MG RESISTOR	300Ω 1/16W D	
R3705	NRSA6AD-301W	MG RESISTOR	300Ω 1/16W D	
R3706	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R3707	NRSA6AD-680W	MG RESISTOR	68Ω 1/16W D	
R3708	NRSA6AD-680W	MG RESISTOR	68Ω 1/16W D	
R3709	NRSA6AD-680W	MG RESISTOR	68Ω 1/16W D	
R3710	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R3711	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R3712	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R3713	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R3714	NRSA6AJ-823W	MG RESISTOR	82kΩ 1/16W J	
R3715	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3722	NRSA6AD-131W	MG RESISTOR	130Ω 1/16W D	
R3724	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R3725	NRSA6AD-131W	MG RESISTOR	130Ω 1/16W D	
R3726	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R3727	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R3728	NRSA6AD-131W	MG RESISTOR	130Ω 1/16W D	
R3730	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R3807	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R3851	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J	
R3852	NRSA6AD-821W	MG RESISTOR	820Ω 1/16W D	
R3853	NRSA6AD-273W	MG RESISTOR	27kΩ 1/16W D	
R3854	NRSA6AD-153W	MG RESISTOR	15kΩ 1/16W D	
R3855	NRSA6AD-821W	MG RESISTOR	820Ω 1/16W D	
R4201	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R4202	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4203	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4204	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4205	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4301	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4303	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4304	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4306	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4307	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R4308	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R4309	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4310	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4315	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4317	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4319	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4321	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4326	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R4327	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4328	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4329	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4330	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4331	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4332	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4333	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4334	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4335	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4336	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4337	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4338	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4339	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4341	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4342	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4343	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4344	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4345	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4346	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4348	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4349	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4350	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4351	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4352	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4353	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4354	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4355	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4356	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4804	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4805	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R4806	NRSA6AJ-683W	MG RESISTOR	68kΩ 1/16W J	
R4807	NRSA6AJ-823W	MG RESISTOR	82kΩ 1/16W J	
R4808	NRSA6AJ-243W	MG RESISTOR	24kΩ 1/16W J	
R4809	NRSA6AJ-681W	MG RESISTOR	680Ω 1/16W J	
R4810	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R4811	NRSA6AJ-824W	MG RESISTOR	820kΩ 1/16W J	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
R4812	NRSA6AJ-153W	MG RESISTOR	15kΩ 1/16W J	
R4814	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R4815	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R4816	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R4817	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	
R4818	NRSA6AJ-154W	MG RESISTOR	150kΩ 1/16W J	
R4819	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R4820	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R4821	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R4822	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R4823	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4824	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R4827	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4828	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4833	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R4836	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4841	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4842	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4843	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4844	NRSA6AJ-151W	MG RESISTOR	150Ω 1/16W J	
R4854	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4856	NRSA6AJ-6R8W	MG RESISTOR	6.8Ω 1/16W J	
R4857	NRSA6AJ-6R8W	MG RESISTOR	6.8Ω 1/16W J	
R4858	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R4859	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4860	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4862	NRSA6AJ-6R8W	MG RESISTOR	6.8Ω 1/16W J	
R4863	NRSA6AJ-6R8W	MG RESISTOR	6.8Ω 1/16W J	
R4864	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4865	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4866	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4867	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4868	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4870	NRSA6AJ-271W	MG RESISTOR	270Ω 1/16W J	
R4871	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4874	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4875	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R5501	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R5503	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R5504	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R5505	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R5506	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R5507	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R5509	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R5511	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R5512	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R5513	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R5514	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R6021	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R6022	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R6023	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R6024	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R6025	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R6026	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R6027	NRSA6AD-103W	MG RESISTOR	10kΩ 1/16W D	
R6028	NRSA6AD-751W	MG RESISTOR	750Ω 1/16W D	
R6029	NRSA6AD-103W	MG RESISTOR	10kΩ 1/16W D	
R6030	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R6031	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R6033	NRSA6AJ-562W	MG RESISTOR	5.6kΩ 1/16W J	
R6034	NRSA6AJ-153W	MG RESISTOR	15kΩ 1/16W J	
R6035	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6036	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6037	NRSA6AD-153W	MG RESISTOR	15kΩ 1/16W D	
R6038	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R6039	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6040	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R6042	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R6044	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	
R6102	NRVA6AD-223W	CMF RESISTOR	22kΩ 1/16W D	
R6103	NRVA6AD-103W	CMF RESISTOR	10kΩ 1/16W D	
R6104	NRSA6AJ-474W	MG RESISTOR	470kΩ 1/16W J	
R6105	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6106	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R6107	NRSA6AD-183W	MG RESISTOR	18kΩ 1/16W D	
R6108	NRSA6AD-123W	MG RESISTOR	12kΩ 1/16W D	
R6109	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R6202	NRSA6AD-123W	MG RESISTOR	12kΩ 1/16W D	
R6203	NRSA6AD-153W	MG RESISTOR	15kΩ 1/16W D	
R6302	NRSA6AD-183W	MG RESISTOR	18kΩ 1/16W D	
R6303	NRSA6AD-472W	MG RESISTOR	4.7kΩ 1/16W D	
R6305	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6306	NRSA6AJ-123W	MG RESISTOR	12kΩ 1/16W J	
R6308	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R6309	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R6402	NRSA6AD-243W	MG RESISTOR	24kΩ 1/16W D	
R6403	NRSA6AD-302W	MG RESISTOR	3kΩ 1/16W D	
R6405	NRSA6AJ-123W	MG RESISTOR	12kΩ 1/16W J	
R6406	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R6407	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6502	NRSA6AD-473W	MG RESISTOR	47kΩ 1/16W D	
R6503	NRSA6AD-562W	MG RESISTOR	5.6kΩ 1/16W D	
R6505	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R6506	NRSA6AJ-273W	MG RESISTOR	27kΩ 1/16W J	
R6602	NRSA6AD-114W	MG RESISTOR	110kΩ 1/16W D	
R6603	NRSA6AD-392W	MG RESISTOR	3.9kΩ 1/16W D	
R6604	NRSA6AD-114W	MG RESISTOR	110kΩ 1/16W D	
R6605	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R6606	NRSA6AD-104W	MG RESISTOR	100kΩ 1/16W D	
R6607	NRSA6AD-473W	MG RESISTOR	47kΩ 1/16W D	
R6608	NRSA6AJ-273W	MG RESISTOR	27kΩ 1/16W J	
R6609	NRSA6AJ-822W	MG RESISTOR	8.2kΩ 1/16W J	
R6610	NRSA6AD-473W	MG RESISTOR	47kΩ 1/16W D	
R6611	NRSA6AD-683W	MG RESISTOR	68kΩ 1/16W D	
R6612	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R6613	NRSA6AJ-823W	MG RESISTOR	82kΩ 1/16W J	
R6614	NRSA6AD-104W	MG RESISTOR	100kΩ 1/16W D	
R6615	NRSA6AD-104W	MG RESISTOR	100kΩ 1/16W D	
R6616	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R6617	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R6618	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R6619	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R6701	NRZ0058-R20X	MG RESISTOR	0.2Ω 1/2W J	
R6702	NRSA6AD-114W	MG RESISTOR	110kΩ 1/16W D	
R6703	NRSA6AD-153W	MG RESISTOR	15kΩ 1/16W D	
R6704	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	
R6706	NRSA6AD-823W	MG RESISTOR	82kΩ 1/16W D	
R6707	NRSA6AD-333W	MG RESISTOR	33kΩ 1/16W D	
R6801	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R6803	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R6804	NRVA6AD-563W	CMF RESISTOR	56kΩ 1/16W D	
⚠ R6805	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R6813	NRVA6AD-273W	CMF RESISTOR	27kΩ 1/16W D	
R6815	NRSA6AJ-681W	MG RESISTOR	680Ω 1/16W J	
R8059	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	A,B,C,D,E
R8701	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8702	NRS181J-220X	MG RESISTOR	22Ω 1/8W J	F,G,H,J
R8703	NRS181J-220X	MG RESISTOR	22Ω 1/8W J	F,G,H,J
R8704	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	F,G,H,J
R8705	NRSA6AJ-152W	MG RESISTOR	1.5kΩ 1/16W J	F,G,H,J
R8706	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	F,G,H,J
R8707	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8708	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8709	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	F,G,H,J
R8710	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8711	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8712	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8713	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8715	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8716	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8717	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8718	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8720	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8721	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
R8722	NRSA6AJ-224W	MG RESISTOR	220kΩ 1/16W J	F,G,H,J
R8723	NRSA6AJ-334W	MG RESISTOR	330kΩ 1/16W J	F,G,H,J
R8724	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	F,G,H,J
RA1001	NRZ0034-473W	NET RESISTOR	47kΩ 1/32W J	
RA1002	NRZ0034-104W	NET RESISTOR	100kΩ 1/32W J	
RA1004	NRZ0034-104W	NET RESISTOR	100kΩ 1/32W J	
RA1005	NRZ0034-103W	NET RESISTOR	10kΩ 1/32W J	
RA1006	NRZ0034-102W	NET RESISTOR	1kΩ 1/32W J	
RA1007	NRZ0034-102W	NET RESISTOR	1kΩ 1/32W J	
RA1008	NRZ0034-104W	NET RESISTOR	100kΩ 1/32W J	
RA3001	NRZ0034-560W	NET RESISTOR	56Ω 1/32W J	
RA3002	NRZ0034-560W	NET RESISTOR	56Ω 1/32W J	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
RA3003	NRZ0034-100W	NET RESISTOR	10Ω 1/32W J	
RA3004	NRZ0034-103W	NET RESISTOR	10kΩ 1/32W J	
RA3005	NRZ0040-0R0X	NET RESISTOR	0Ω 1/16W J	
L1001	NQL402M-100X	COIL	10uH M	
L1002	NQL402M-100X	COIL	10uH M	
L2101	NQL315K-100X	COIL	10uH K	F,G,H,J
L2401	NQL402M-100X	COIL	10uH M	
L2402	NQL402M-100X	COIL	10uH M	
L2604	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L3001	NQR0129-002X	FERRITE BEADS		
L3002	NQR0129-002X	FERRITE BEADS		
L3004	NQR0006-001X	FERRITE BEADS		
L3005	NQR0006-001X	FERRITE BEADS		
L3007	NQL085J-2R2X	COIL	2.2uH J	
L3008	NQL085J-120X	COIL	12uH J	
L3012	NQR0129-002X	FERRITE BEADS		
L3014	NQL38DK-100X	P COIL	10uH K	
L3015	NQR0006-001X	FERRITE BEADS		
L3701	NQL38DK-100X	P COIL	10uH K	
L3801	NQR0129-002X	FERRITE BEADS		
L3802	NQR0129-002X	FERRITE BEADS		
L3803	NQR0006-001X	FERRITE BEADS		
L3804	NQL38DK-100X	P COIL	10uH K	
L4201	NQR0129-002X	FERRITE BEADS		
L4301	NQR0129-002X	FERRITE BEADS		
L4302	NQR0129-002X	FERRITE BEADS		
L4802	NQL302N-100X	COIL	10uH N	
L4851	NQR0129-002X	FERRITE BEADS		
L4852	NQL315K-100X	COIL	10uH K	
L4853	NQL315K-100X	COIL	10uH K	
L5501	NQL315K-100X	COIL	10uH K	
L5502	NQR0129-002X	FERRITE BEADS		
L5503	NQR0129-002X	FERRITE BEADS		
L5504	NQR0129-002X	FERRITE BEADS		
L5505	NQL315K-100X	COIL	10uH K	
L5506	NQL315K-100X	COIL	10uH K	
L6001	NQLZ011-4R7X	COIL	4.7uH N	
L6002	NQLZ011-4R7X	COIL	4.7uH N	
L6101	NQL52EM-390X	COIL	39uH M	
L6201	NQL52EM-390X	COIL	39uH M	
L6301	NQL52EM-390X	COIL	39uH M	
L6302	NQL144K-220X	P COIL	22uH K	
L6401	NQL52EM-470X	COIL	47uH M	
L6501	NQL52EM-470X	COIL	47uH M	
L6601	NQL52EM-221X	COIL	220uH M	
L6701	NQL73EM-100X	COIL	10uH M	
L6801	NQL034K-470X	P COIL	47uH K	
L8701	NQR0129-002X	FERRITE BEADS		F,G,H,J
L8702	NQR0129-002X	FERRITE BEADS		F,G,H,J
CN101	QGF0528F1-40X	CONNECTOR	FFC/FPC (1-40)	
CN102	QGF0505F1-22X	CONNECTOR	FFC/FPC (1-22)	
CN104	QGA1002C1-11X	CONNECTOR	W-B (1-11)	
CN105	QGB0509M1-30X	CONNECTOR	B-B (1-30)	
CN106	QGA1201C2-05X	CONNECTOR	W-B (1-5)	
CN107	QGF0503C1-20X	CONNECTOR	FFC/FPC (1-20)	
CN108	QGF0503C1-24V	CONNECTOR	FFC/FPC (1-24)	
CN109	QGF0503F1-16X	CONNECTOR	FFC/FPC (1-16)	
CN110	QGF0528F1-40X	CONNECTOR	FFC/FPC (1-40)	
CN111	QGF0528F1-40X	CONNECTOR	FFC/FPC (1-40)	
⚠ F6001	NMFZ007-2R0X-K	FUSE	2A 32V	
⚠ F6301	NMFZ007-1R25X-K	FUSE	1.25A 32V	
⚠ F6701	NMFZ007-1R25X-K	FUSE	1.25A 32V	
⚠ F6801	NMFZ007-R50X-K	FUSE	0.5A 50V	
J501	NNZ0041-001X	D CONNECTOR	IEEE1394(4pin)	
J502	QNZ0616-001	USB CONNECTOR		F,G,H,J
X1001	NAX0578-001X	CRYSTAL		
X1002	NAX0564-001X	CRYSTAL		
X3002	NAX0480-001X	CRYSTAL	24.576MHz	
X5501	NAX0587-001X	CXO		
X8701	NAX0398-001X	C OSCILLATOR		F,G,H,J
OT1	LY30030-069A	SPACER(A)		
OT2	LY44158-001A	SHEET(SHIELD)		
WR1	QAL0474-001	FPC	MAIN-PREMDA CN401	
WR2	QAL0474-001	FPC	MAIN-PREMDA CN408	

MONI-BW BOARD ASSEMBLY <02>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB10433E	MONI-BW BOARD ASSY		
IC7601	AN12550A	IC		
IC7602	BA4558F-X	IC		
Q7601	2SC4617/QR/-X	TRANSISTOR		
Q7601 or	2SC4738/YG/-X	TRANSISTOR		
Q7601 or	2SD2216J/QR/-X	TRANSISTOR		
Q7601 or	BC847BT-X	TRANSISTOR		
Q7602	2SA1774/QR/-X	TRANSISTOR		
Q7602 or	2SA1832/YG/-X	TRANSISTOR		
Q7602 or	BC857BT-X	TRANSISTOR		
Q7603	2SC4617/QR/-X	TRANSISTOR		
Q7603 or	2SC4738/YG/-X	TRANSISTOR		
Q7603 or	2SD2216J/QR/-X	TRANSISTOR		
Q7603 or	BC847BT-X	TRANSISTOR		
Q7604	2SA1774/QR/-X	TRANSISTOR		
Q7604 or	2SA1832/YG/-X	TRANSISTOR		
Q7604 or	BC857BT-X	TRANSISTOR		
Q7608	DTC144EE-X	DIGI TRANSISTOR		
Q7608 or	UN9213J-X	DIGI TRANSISTOR		
Q7608 or	RN1104-X	DIGI TRANSISTOR		
Q7608 or	BCR148T-X	DIGI TRANSISTOR		
Q7609	2SC4617/QR/-X	TRANSISTOR		
Q7609 or	2SC4738/YG/-X	TRANSISTOR		
Q7609 or	2SD2216J/QR/-X	TRANSISTOR		
Q7609 or	BC847BT-X	TRANSISTOR		
Q7610	DTA114EE-X	DIGI TRANSISTOR		
Q7610 or	BCR183T-X	DIGI TRANSISTOR		
Q7611	DTC144EE-X	DIGI TRANSISTOR		
Q7611 or	UN9213J-X	DIGI TRANSISTOR		
Q7611 or	RN1104-X	DIGI TRANSISTOR		
Q7611 or	BCR148T-X	DIGI TRANSISTOR		
Q7612	DTA144EE-X	DIGI TRANSISTOR		
Q7612 or	UN9113J-X	DIGI TRANSISTOR		
Q7612 or	RN2104-X	DIGI TRANSISTOR		
Q7612 or	BCR198T-X	DIGI TRANSISTOR		
Q7613	2SD2654/VW/-X	TRANSISTOR		
D7602	1SS355-X	SI DIODE		
C1	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C10	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7601	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C7602	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7603	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7604	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7605	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7606	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7607	NCB41CK-106X	C CAPACITOR	10uF 16V K	
C7608	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7609	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7613	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7614	NCB31HK-152X	C CAPACITOR	1500pF 50V K	
C7615	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7616	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7617	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7618	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C7619	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C7620	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7621	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C7622	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C7623	NBE21AM-106X	TA E CAPACITOR	10uF 10V M	
C7624	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7626	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7627	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C7628	NBP41EM-475X	TA E CAPACITOR	4.7uF 25V M	
C7629	NBP21CM-335X	TA E CAPACITOR	3.3uF 16V M	
C7630	NBP41EM-475X	TA E CAPACITOR	4.7uF 25V M	
C7631	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7632	NBP41EM-475X	TA E CAPACITOR	4.7uF 25V M	
C7633	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7634	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7635	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7637	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7646	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
C7647	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7651	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7661	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7662	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7663	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7664	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7665	NBP41CM-226X	TA E CAPACITOR	22uF 16V M	
C7666	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
R3	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R4	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R5	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R6	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R8	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R7601	NRVA63D-622X	CMF RESISTOR	6.2kΩ 1/16W D	
R7602	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R7603	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	
R7608	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R7609	NRVA63D-223X	CMF RESISTOR	22kΩ 1/16W D	
R7610	NRVA63D-433X	CMF RESISTOR	43kΩ 1/16W D	
R7611	NRVA63D-821X	CMF RESISTOR	820Ω 1/16W D	
R7612	NRVA63D-223X	CMF RESISTOR	22kΩ 1/16W D	
R7613	NRVA63D-223X	CMF RESISTOR	22kΩ 1/16W D	
R7614	NRVA63D-223X	CMF RESISTOR	22kΩ 1/16W D	
R7615	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7616	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7617	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	
R7618	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J	
R7620	NRSA63J-335X	MG RESISTOR	3.3MΩ 1/16W J	
R7621	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7630	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7634	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7636	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R7637	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R7638	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R7661	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7662	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7663	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R7666	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R7667	NRVA63D-273X	CMF RESISTOR	27kΩ 1/16W D	
R7668	NRVA63D-273X	CMF RESISTOR	27kΩ 1/16W D	
R7669	NRVA63D-392X	CMF RESISTOR	3.9kΩ 1/16W D	
R7672	NRSA63D-394X	MG RESISTOR	390kΩ 1/16W D	
R7673	NRVA63D-473X	CMF RESISTOR	47kΩ 1/16W D	
R7674	NRVA63D-473X	CMF RESISTOR	47kΩ 1/16W D	
R7675	NRSA63J-274X	MG RESISTOR	270kΩ 1/16W J	
L7601	NQL365K-100X	COIL	10uH K	
L7602	NQL365K-470X	COIL	47uH K	
L7603	NQL365K-470X	COIL	47uH K	
L7604	NQL365K-100X	COIL	10uH K	
L7605	NQL365K-100X	COIL	10uH K	
L7607	NQL365K-100X	COIL	10uH K	
CN761	QGF0508F1-40X	CONNECTOR	FFC/FPC (1-40)	
CN763	QGF0507F3-20X	CONNECTOR	FFC/FPC (1-20)	
CN765	QGF0506F2-32X	CONNECTOR	FFC/FPC (1-32)	
SW2	NSW0145-001X	TACT SWITCH STOP		
SW3	NSW0145-001X	TACT SWITCH REW		
SW4	NSW0145-001X	TACT SWITCH FF		
SW5	NSW0145-001X	TACT SWITCH PLAY/PAUSE		
SW7	NSW0145-001X	TACT SWITCH INDEX		
SW8	NSW0145-001X	TACT SWITCH SELECT		
SW7601	NSW0200-001X	LEVER SWITCH MONI SW		

BL-2.5 BOARD ASSEMBLY <03>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB20938A	BL-2.5 BOARD ASSY		
IC7604	DN8797MS-X	IC		
Q7501	2SD1664/QR/-W	TRANSISTOR		
Q7502	2SD1664/QR/-W	TRANSISTOR		
Q7503	DTA144EE-X	DIGI TRANSISTOR		
Q7503 or	UN9113J-X	DIGI TRANSISTOR		
Q7503 or	RN2104-X	DIGI TRANSISTOR		
Q7503 or	BCR198T-X	DIGI TRANSISTOR		
Q7504	DTC144EE-X	DIGI TRANSISTOR		
Q7504 or	UN9213J-X	DIGI TRANSISTOR		
Q7504 or	RN1104-X	DIGI TRANSISTOR		
Q7504 or	BCR148T-X	DIGI TRANSISTOR		
C7501	NCZ1016-120X	C CAPACITOR	12pF 2kV J	
C7502	NCB21EK-273X	C CAPACITOR	0.027uF 25V K	
C7503	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7504	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
R7501	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R7502	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R7503	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R7504	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7511	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7512	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7513	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L7501	NQLZ010-680X	COIL	68uH M	
⚠ T7501	NQS0056-001X	SW TARNSF		
CN7601	QGF0507F3-16X	CONNECTOR	FFC/FPC (1-16)	
CN7602	QGF0507F3-16X	CONNECTOR	FFC/FPC (1-16)	
CN7603	QGF0508F1-24X	CONNECTOR	FFC/FPC (1-24)	
⚠ F7501	NMFZ007-R40X-K	FUSE	0.4A 50V	
WR1	QAL0464-001	FPC		

CCD BOARD ASSEMBLY <04>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB20942A-SS	CCD BOARD ASSY		
Q5001	2SC3931/CD/-X	TRANSISTOR		
C5001	NBP41EM-475X	TA E CAPACITOR	4.7uF 25V M	
C5002	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5003	NBE21AM-106X	TA E CAPACITOR	10uF 10V M	
C5004	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5005	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5006	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5007	NCB31EK-222X	C CAPACITOR	2200pF 25V K	
R5001	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R5002	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
L5001	NQL315K-100X	COIL	10uH K	
L5002	NQL315K-100X	COIL	10uH K	
CN5001	QGF0517F2-20X	CONNECTOR	FFC/FPC (1-20)	

PREMDA BOARD ASSEMBLY <05>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB10405A-01	PREMDA BOARD ASSY		
IC1601	BD6637KS	IC		
IC1701	LM358DMR2-X	IC		
IC1702	LM393DMR2-X	IC		
IC3501	JCY0132	IC		
IC3502	SN74AHC1G04K-X	IC		
Q1601	UMC3N-W	DIGI TRANSISTOR		
D1602	DAP222-X	DIODE ARRAY		
D1602 or	MA132WA-X	SI DIODE		

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
D1603	DAP222-X	DIODE ARRAY		
D1603 or	MA132WA-X	SI DIODE		
D1604	DAP222-X	DIODE ARRAY		
D1604 or	MA132WA-X	SI DIODE		
C1601	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C1602	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C1603	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C1605	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1606	NCB31HK-152X	C CAPACITOR	1500pF 50V K	
C1607	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C1614	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C1618	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C1619	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C1620	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C1621	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C1622	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C1623	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C1624	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C1625	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C1626	NCB31HK-822X	C CAPACITOR	8200pF 50V K	
C1627	NCB31HK-822X	C CAPACITOR	8200pF 50V K	
C1628	NCB21CK-224X	C CAPACITOR	0.22uF 16V K	
C1629	NBP41DM-106X	TA E CAPACITOR	10uF 20V M	
C1630	NCB21CK-334X	C CAPACITOR	0.33uF 16V K	
C1632	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C1633	NCB21CK-474X	C CAPACITOR	0.47uF 16V K	
C1641	NCB21CK-474X	C CAPACITOR	0.47uF 16V K	
C1701	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1702	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C3501	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3502	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3503	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C3504	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C3505	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C3506	NCB21AK-105X	C CAPACITOR	1uF 10V K	
C3507	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3508	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3509	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3510	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C3511	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3512	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C3513	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C3514	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C3515	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C3516	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C3517	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3518	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3519	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C3520	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3521	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C3522	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M	
C3523	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3524	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3525	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M	
C3526	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3527	NDC31HJ-221X	C CAPACITOR	220pF 50V J	
C3528	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
R1601	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R1602	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J	
R1603	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R1604	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R1610	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R1611	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R1612	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R1613	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1614	NRZ0072-R330X	MG RESISTOR	0.33Ω 1/4W F	
R1616	NRSA63D-332X	MG RESISTOR	3.3kΩ 1/16W D	
R1617	NRZ0072-R330X	MG RESISTOR	0.33Ω 1/4W F	
R1620	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1621	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1622	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1624	NRSA63D-183X	MG RESISTOR	18kΩ 1/16W D	
R1625	NRSA63D-361X	MG RESISTOR	360Ω 1/16W D	
R1629	NRSA63J-564X	MG RESISTOR	560kΩ 1/16W J	
R1630	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1631	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	

⚠ Symbol No.	Part No.	Part Name	Description	Local
R1635	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R1636	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R1637	NRSA63J-154X	MG RESISTOR	150kΩ 1/16W J	
R1638	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1639	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1640	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1641	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1642	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1648	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1701	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J	
R1702	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1703	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1704	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1705	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1706	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J	
R1707	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1708	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J	
R1709	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1710	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J	
R1711	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1712	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R3501	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R3502	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R3503	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R3504	NRSA63D-241X	MG RESISTOR	240Ω 1/16W D	
R3505	NRSA63D-241X	MG RESISTOR	240Ω 1/16W D	
R3506	NRSA63D-241X	MG RESISTOR	240Ω 1/16W D	
R3507	NRSA63D-241X	MG RESISTOR	240Ω 1/16W D	
R3508	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R3511	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
L3501	NQR0006-001X	FERRITE BEADS		
L3502	NQL402M-100X	COIL	10uH M	
L3503	NQR0006-001X	FERRITE BEADS		
L3504	NQR0006-001X	FERRITE BEADS		
L3505	NQR0006-001X	FERRITE BEADS		
CN401	QGF0528F1-40X	CONNECTOR	FFC/FPC (1-40)	
CN402	QGF0517F1-08X	CONNECTOR	FFC/FPC (1-8)	
CN403	QGF0505F2-06X	CONNECTOR	FFC/FPC (1-6)	
CN404	QGF0507F3-11X	CONNECTOR	FFC/FPC (1-11)	
CN405	QGF0507F3-18X	CONNECTOR	FFC/FPC (1-18)	
CN406	QGF0503F4-16X	CONNECTOR	FFC/FPC (1-16)	
CN407	QGF0508F1-06X	CONNECTOR	FFC/FPC (1-6)	
CN408	QGF0528F1-40X	CONNECTOR	FFC/FPC (1-40)	
⚠ F1601	NMFZ007-R20X-K	FUSE	0.2A 50V	
⚠ F1602	NMFZ007-R50X-K	FUSE	0.5A 50V	
OT1	LY33021-001A	S.COVER(P/R)		

JACK BOARD ASSEMBLY <06>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB20943B-01	JACK BOARD ASSY		
IC501	BA10358F-XE	IC		
IC502	RPM7138-V4	IR DETECT UNIT		
Q501	RPM-22PB	PHOTO TRANSISTOR		
D501	SML-010LT-X	LED		
D503	MA8068-X	Z DIODE		
D506	MA8068-X	Z DIODE		
D507	EMZ6.8N-X	Z DIODE		
C501	NBE21AM-335X	TA E CAPACITOR	3.3uF 10V M	
C502	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C503	NCB31EK-153X	C CAPACITOR	0.015uF 25V K	
C504	NCB31EK-153X	C CAPACITOR	0.015uF 25V K	
C506	NBE21AM-106X	TA E CAPACITOR	10uF 10V M	
C509	NBE20JM-226X	TA E CAPACITOR	22uF 6.3V M	
C512	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C513	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
R501	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	

MODEL	MARK	MODEL	MARK	MODEL	MARK
GR-D20EK	A	GR-D20EZ	D	GR-D40EX	G
GR-D20EX	B	GR-D21EK	E	GR-D40EY	H
GR-D20EY	C	GR-D40EK	F	GR-D40EZ	J

⚠ Symbol No.	Part No.	Part Name	Description	Local
R502	NRSA63J-684X	MG RESISTOR	680kΩ 1/16W J	
R503	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R504	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R505	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R506	NRSA63J-824X	MG RESISTOR	820kΩ 1/16W J	
R507	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R508	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	
R509	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	
R510	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R511	NRSA63J-302X	MG RESISTOR	3kΩ 1/16W J	
R512	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R513	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R514	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R515	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R516	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R517	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R518	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R519	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R520	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R521	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R522	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R523	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
L501	NQR0251-004X	FERRITE BEADS		
L502	NQR0251-004X	FERRITE BEADS		
L503	NQR0251-004X	FERRITE BEADS		
CN501	QGF0503C1-22X	CONNECTOR	FFC/FPC (1-22)	
J501	QNS0078-001	3.5 JACK		
J502	QND0004-001	S JACK		
J503	PEMC1203	MINI JACK		
SW501	NSW0122-001X	DETECT SWITCH EJECT SW		

B/W-VF BOARD ASSEMBLY <07>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB20940A	B/W-VF BOARD ASSY		
Q7001	PUMX1-W	PAIR TRANSISTOR		
Q7001 or	BC847S-X	PAIR TRANSISTOR		
D7001	E1S35AW0C501-X	LED		
C7001	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7002	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7003	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7004	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
R7001	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R7002	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J	
R7003	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R7004	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
CN7001	QGF0532F1-18X	CONNECTOR	FFC/FPC (1-18)	
CN7002	QGF0507F3-20X	CONNECTOR	FFC/FPC (1-20)	

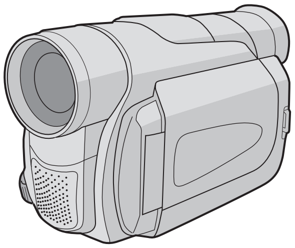
JVC

SCHEMATIC DIAGRAMS

DIGITAL VIDEO CAMERA

GR-D20EK,GR-D20EX,GR-D20EY,GR-D20EZ,GR-D21EK, GR-D40EK,GR-D40EX,GR-D40EY,GR-D40EZ

CD-ROM No.SML200305



Mini DV PAL

For disassembling and assembling of MECHANISM ASSEMBLY, refer to the SERVICE MANUAL No.86700 (MECHANISM ASSEMBLY).

SPECIFICATION

Camcorder

General

Power supply	DC 11.0 V ⎓ (Using AC Adapter) DC 7.2 V ⎓ (Using battery pack)
Power consumption	
LCD monitor off, viewfinder on	Approx. 3.4 W
LCD monitor on, viewfinder off	Approx. 4.7 W
Dimensions (W x H x D)	69 mm x 94 mm x 143 mm (with the LCD monitor closed and the viewfinder pushed back in)
Weight	Approx. 525 g
Operating temperature	0°C to 40°C
Operating humidity	35% to 80%
Storage temperature	-20°C to 50°C
Pickup	1/6" CCD
Lens	F 1.6, f = 2.7 mm to 43.2 mm, 16:1 power zoom lens
Filter diameter	Ø37 mm
LCD monitor	2.5" diagonally measured, LCD panel/TFT active matrix system
Viewfinder	Electronic viewfinder with 0.24" black/white LCD
Speaker	Monaural

Digital Video Camera

Format	DV format (SD mode)
Signal format	PAL standard
Recording/Playback format	Video: Digital component recording Audio: PCM digital recording, 32 kHz 4-channel (12-bit), 48 kHz 2-channel (16-bit)
Cassette	Mini DV cassette
Tape speed	SP : 18.8 mm/s LP : 12.5 mm/s
Maximum recording time (using 80 min. cassette)	SP : 80 min. LP : 120 min.

Connectors

S-Video	
Output	Y : 1 V (p-p), 75 Ω, analogue C : 0.29 V (p-p), 75 Ω, analogue
Input*	Y : 0.8 V (p-p) -1.2 V (p-p), 75 Ω, analogue C : 0.2 V (p-p) -0.4 V (p-p), 75 Ω, analogue
AV	
Video output	1 V (p-p), 75 Ω, analogue
Video input*	0.8 V (p-p) -1.2 V (p-p), 75 Ω, analogue
Audio output	300 mV (rms), 1 kΩ, analogue, stereo
Audio input*	300 mV (rms), 50 kΩ, analogue, stereo
DV	
Output	4-pin, IEEE 1394 compliant
Input*	4-pin, IEEE 1394 compliant
USB**	5-pin
EDIT	Ø3.5 mm, 2-pole

* GR-D50/D30 only
** GR-D50/D40 only

AC Adapter

Power requirement	AC 110 V to 240 V ~, 50 Hz/60 Hz
Output	DC 11 V ⎓, 1 A

Specifications shown are for SP mode unless otherwise indicated. E & O.E. Design and specifications subject to change without notice.

GR-D20EK,GR-D20EX,GR-D20EY,GR-D20EZ,GR-D21EK,GR-D40EK,GR-D40EX,GR-D40EY,GR-D40EZ M3D122,M3D124

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No.86730SCH
2003/04

CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions
The Components identified by the symbol ⚠ are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

Unless otherwise specified.

1) All resistance values are in ohm. 1/6 W, 1/8 W (refer to parts list).
   Chip resistors are 1/16 W.
   K: KΩ (1000Ω), M: MΩ (1000KΩ)
2) All capacitance values are in µF, (P: PF).
3) All inductance values are in µH, (m: mH).
4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

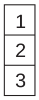
Note: The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only. When replacing the parts, refer to the Parts List.

2. Indications of control voltage

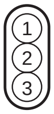
AUX : Active at high.

$\overline{\text{AUX}}$ or AUX(L) : Active at low.

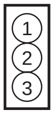
3. Interpreting Connector indications



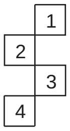
Removable connector



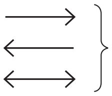
Wire soldered directly on board



Non-removable Board connector



Board to Board

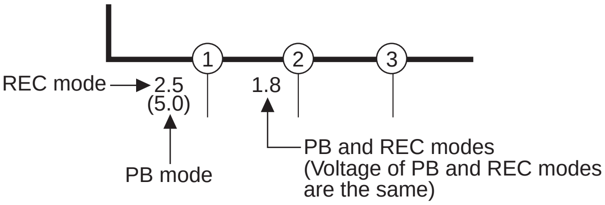


Connected pattern on board
The arrows indicate signal path

Note: For the destination of each signal and further line connections that are cut off from the diagram, refer to "BOARD INTERCONNECTIONS"

4. Voltage measurement

1) Regulator (DC/DC CONV) circuits
   REC : Colour bar signal.
   PB : Alignment tape (Colour bar).
   — : Unmeasurable or unnecessary to measure.
4) Indication on schematic diagram
   Voltage Indications for REC and PB mode on the schematic diagram are as shown below.

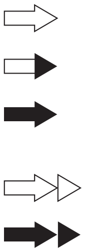


Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

5. Signal path Symbols

The arrows indicate the signal path as follows.

NOTE : The arrow is DVC unique object.



Playback signal path

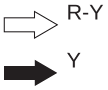
Playback and recording signal path

Recording signal path
(including E-E signal path)

Capstan servo path

Drum servo path

(Example)

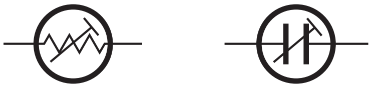


Playback R-Y signal path

Recording Y signal path

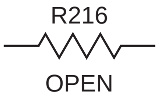
6. Indication of the parts for adjustments

The parts for the adjustments are surrounded with the circle as shown below.



7. Indication of the parts not mounted on the circuit board

"OPEN" is indicated by the parts not mounted on the circuit board.



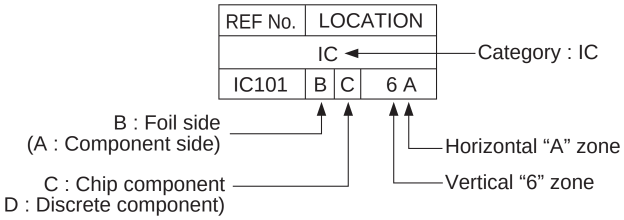
CIRCUIT BOARD NOTES

1. Foil and Component sides

1) Foil side (B side) :
   Parts on the foil side seen from foil face (pattern face) are indicated.
2) Component side (A side) :
   Parts on the component side seen from component face (parts face) indicated.

2. Parts location guides

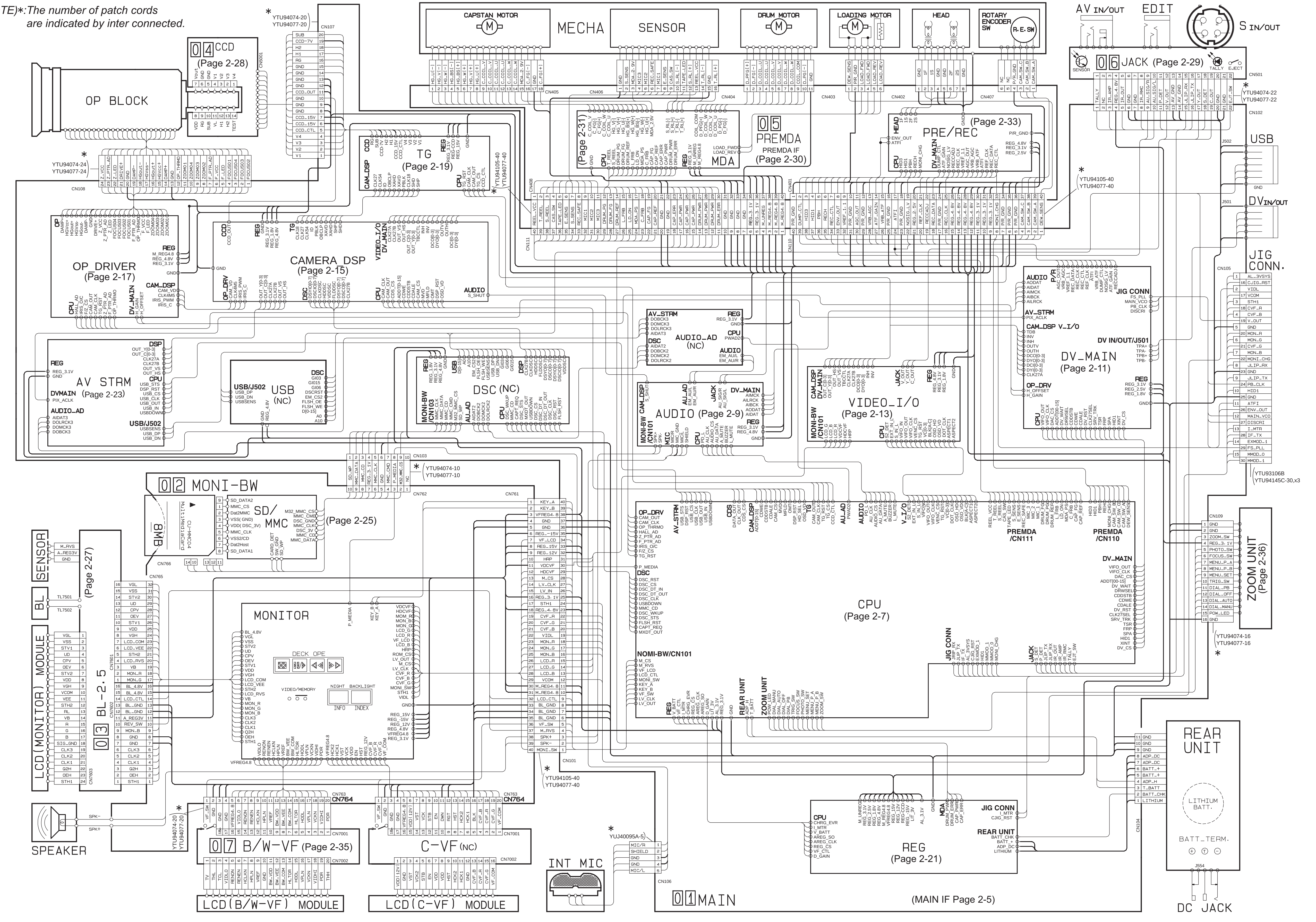
Parts location are indicated by guide scale on the circuit board.


REF No.
LOCATION
IC
IC101
B
C
6 A
Category : IC
B : Foil side
(A : Component side)
C : Chip component
D : Discrete component)
Horizontal "A" zone
Vertical "6" zone

Note: For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

■ BOARD INTERCONNECTIONS

NOTE):The number of patch cords are indicated by inter connected.*



OP BLOCK
04 CCD (Page 2-28)
TG (Page 2-19)
CAMERA_DSP (Page 2-15)
OP_DRIVER (Page 2-17)
AV STRM (Page 2-23)
USB (NC)
DSC (NC)
MECHA
CAPSTAN MOTOR
SENSOR
DRUM MOTOR
LOADING MOTOR
HEAD
ROTARY ENCODER SW
R.E.SW
MDA (Page 2-31)
05 PREMDA
PREMDA IF (Page 2-30)
PRE/REC (Page 2-33)
AV IN/OUT
EDIT
S IN/OUT
06 JACK (Page 2-29)
SENSOR
TALLY
EJECT
USB
DV IN/OUT
JIG CONN.
AUDIO_AD (NC)
AUDIO (Page 2-9)
VIDEO_I/O (Page 2-13)
DV_MAIN (Page 2-11)
02 MONI-BW
SD/MMC (Page 2-25)
8MB
MONITOR
DECK OPE
VIDEO/MEMORY
NIGHT
BACKLIGHT
INFO
INDEX
SENSOR
BL
LCD(MONITOR) MODULE
03 BL-2.5 (Page 2-27)
SPEAKER
07 B/W-VF (Page 2-35)
C-VF (NC)
LCD(B/W-VF) MODULE
LCD(C-VF) MODULE
INT MIC
CPU (Page 2-7)
REG (Page 2-21)
ZOOM UNIT (Page 2-36)
REAR UNIT
LITHIUM BATT.
BATT_TERM.
DC JACK
01 MAIN
(MAIN IF Page 2-5)
YTU94074-20
YTU94077-20
YTU94074-24
YTU94077-24
YTU94105-40
YTU94077-40
YTU94074-22
YTU94077-22
YTU94074-10
YTU94077-10
YTU93106B
YTU94145C-30,x3
YTU94074-16
YTU94077-16
YUJ40095A-5

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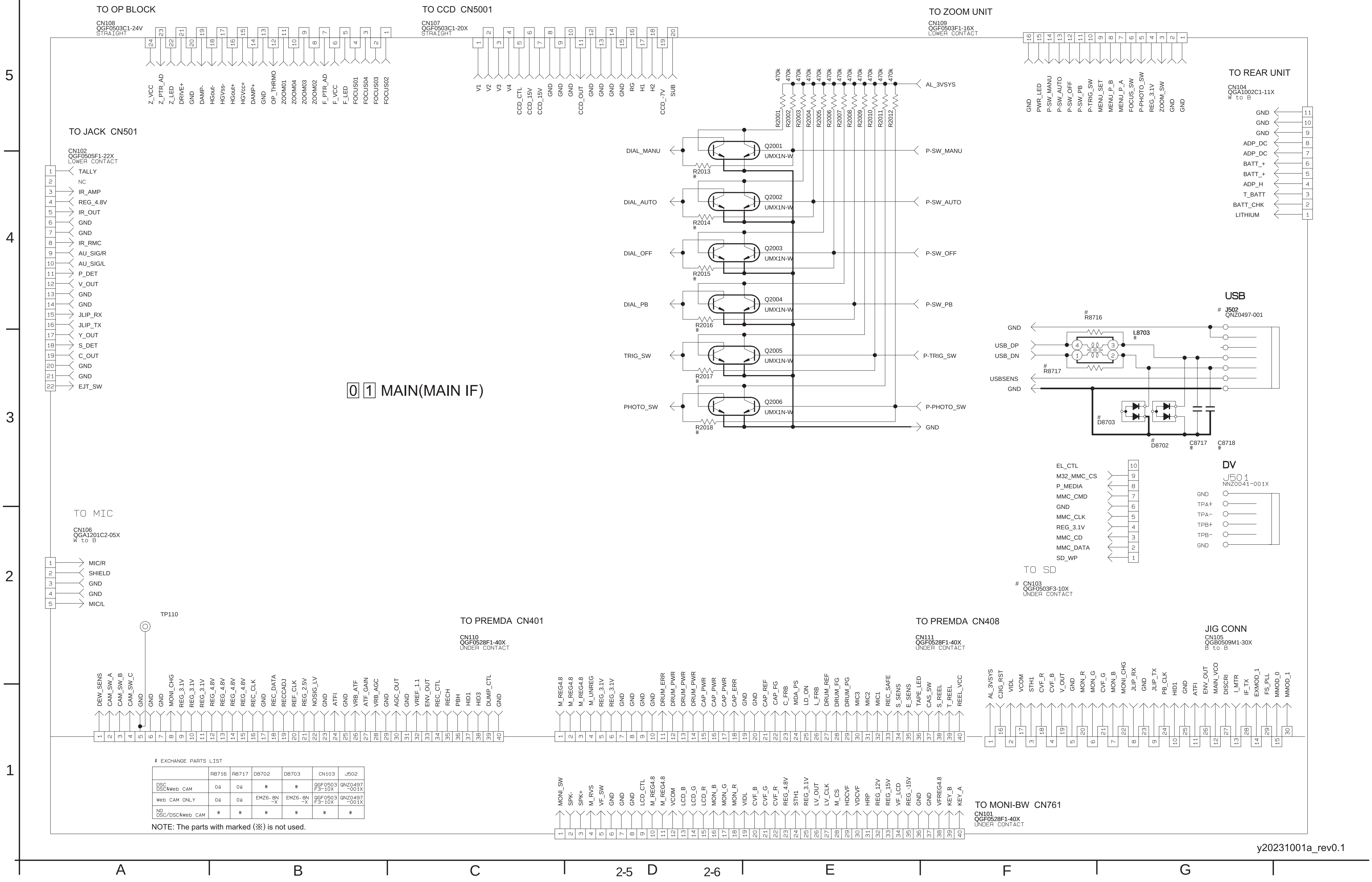
MAIN IF SCHEMATIC DIAGRAM



TO OP BLOCK
CN108
QGF0503C1-24V
STRAIGHT
Z_VCC
Z_PTR_AD
Z_LED
DRIVE+
GND
DAMP-
HGout-
HGVss-
HGout+
HGVcc+
DAMP+
GND
OP_THRMO
ZOOM01
ZOOM04
ZOOM03
ZOOM02
F_PTR_AD
F_VCC
F_LED
FOCUS01
FOCUS04
FOCUS03
FOCUS02
TO CCD CN5001
CN107
QGF0503C1-20X
STRAIGHT
V1
V2
V3
V4
CCD_CTL
CCD_15V
CCD_15V
GND
GND
GND
CCD_OUT
GND
GND
GND
GND
RG
H1
H2
CCD_-7V
SUB
TO ZOOM UNIT
CN109
QGF0503F1-16X
LOWER CONTACT
GND
PWR_LED
P-SW_MANU
P-SW_AUTO
P-SW_OFF
P-SW_PB
P-TRIG_SW
MENU_SET
MENU_P_B
MENU_P_A
FOCUS_SW
P-PHOTO_SW
REG_3.1V
ZOOM_SW
GND
GND
AL_3VSYS
470k
R2001
R2002
R2003
R2004
R2005
R2006
R2007
R2008
R2009
R2010
R2011
R2012
DIAL_MANU
Q2001
UMX1N-W
R2013
P-SW_MANU
DIAL_AUTO
Q2002
UMX1N-W
R2014
P-SW_AUTO
DIAL_OFF
Q2003
UMX1N-W
R2015
P-SW_OFF
DIAL_PB
Q2004
UMX1N-W
R2016
P-SW_PB
TRIG_SW
Q2005
UMX1N-W
R2017
P-TRIG_SW
PHOTO_SW
Q2006
UMX1N-W
R2018
P-PHOTO_SW
GND
TO REAR UNIT
CN104
QGA1002C1-11X
W to B
GND
GND
GND
ADP_DC
ADP_DC
BATT_+
BATT_+
ADP_H
T_BATT
BATT_CHK
LITHIUM
TO JACK CN501
CN102
QGF0505F1-22X
LOWER CONTACT
TALLY
NC
IR_AMP
REG_4.8V
IR_OUT
GND
GND
IR_RMC
AU_SIG/R
AU_SIG/L
P_DET
V_OUT
GND
GND
JLIP_RX
JLIP_TX
Y_OUT
S_DET
C_OUT
GND
GND
EJT_SW
0 1 MAIN(MAIN IF)
USB
# J502
QNZ0497-001
# R8716
L8703
#
GND
USB_DP
USB_DN
# R8717
USBSENS
GND
# D8703
# D8702
C8717 ※
C8718 ※
EL_CTL
M32_MMC_CS
P_MEDIA
MMC_CMD
GND
MMC_CLK
REG_3.1V
MMC_CD
MMC_DATA
SD_WP
TO SD
# CN103
QGF0503F3-10X
UNDER CONTACT
DV
J501
NNZ0041-001X
GND
TPA+
TPA-
TPB+
TPB-
GND
TO MIC
CN106
QGA1201C2-05X
W to B
MIC/R
SHIELD
GND
GND
MIC/L
TP110
TO PREMDA CN401
CN110
QGF0528F1-40X
UNDER CONTACT
DEW_SENS
CAM_SW_A
CAM_SW_B
CAM_SW_C
GND
GND
GND
MONI_CHG
REG_3.1V
REG_3.1V
REG_3.1V
REG_4.8V
REG_4.8V
REG_4.8V
REG_4.8V
REC_CLK
GND
REC_DATA
RECCADJ
REF_CLK
REG_2.5V
NOSIG_LV
GND
ATFI
GND
VRB_ATF
ATF_GAIN
VRB_AGC
GND
AGC_OUT
GND
VREF_1.1
ENV_OUT
REC_CTL
RECH
PBH
HID1
HID3
DUMP_CTL
GND
M_REG4.8
M_REG4.8
M_REG4.8
M_UNREG
REG_3.1V
REG_3.1V
GND
GND
GND
GND
DRUM_ERR
DRUM_PWR
DRUM_PWR
DRUM_PWR
CAP_PWR
CAP_PWR
CAP_PWR
CAP_ERR
GND
GND
CAP_REF
CAP_FG
C_FRB
MDA_PS
LD_ON
L_FRB
DRUM_REF
DRUM_FG
DRUM_PG
MIC3
MIC2
MIC1
REC_SAFE
S_SENS
E_SENS
TAPE_LED
CAS_SW
S_REEL
T_REEL
REEL_VCC
TO PREMDA CN408
CN111
QGF0528F1-40X
UNDER CONTACT
JIG CONN
CN105
QGB0509M1-30X
B to B
AL_3VSYS
CJIG_RST
VIDL
VCOM
STH1
CVF_R
CVF_B
V_OUT
GND
MON_R
MON_G
CVF_G
MON_B
MONI_CHG
JLIP_RX
GND
JLIP_TX
PB_CLK
HID1
GND
ATFI
ENV_OUT
MAIN_VCO
DISCRI
I_MTR
IF_TX
EXMOD_1
FS_PLL
MMOD_0
MMOD_1
MONI_SW
SPK-
SPK+
M_RVS
VF_SW
GND
GND
LCD_CTL
M_REG4.8
M_REG4.8
VCOM
LCD_B
LCD_G
LCD_R
MON_B
MON_G
MON_R
VIDL
CVF_B
CVF_G
CVF_R
REG_4.8V
STH1
REG_3.1V
LV_OUT
LV_CLK
M_CS
HDCVF
VDCVF
HRP
REG_12V
REG_15V
VF_LCD
REG_15V
GND
GND
VFREG4.8
KEY_B
KEY_A
TO MONI-BW CN761
CN101
QGF0528F1-40X
UNDER CONTACT
5
4
3
2
1
A
B
C
D
E
F
G

# EXCHANGE PARTS LIST

	R8716	R8717	D8702	D8703	CN103	J502
DSC DSC&Web CAM	0Ω	0Ω	※	※	QGF0503F3-10X	QNZ0497-001X
Web CAM ONLY	0Ω	0Ω	EMZ6.8N-X	EMZ6.8N-X	QGF0503F3-10X	QNZ0497-001X
NO DSC/DSC&Web CAM	※	※	※	※	※	※

NOTE: The parts with marked (※) is not used.

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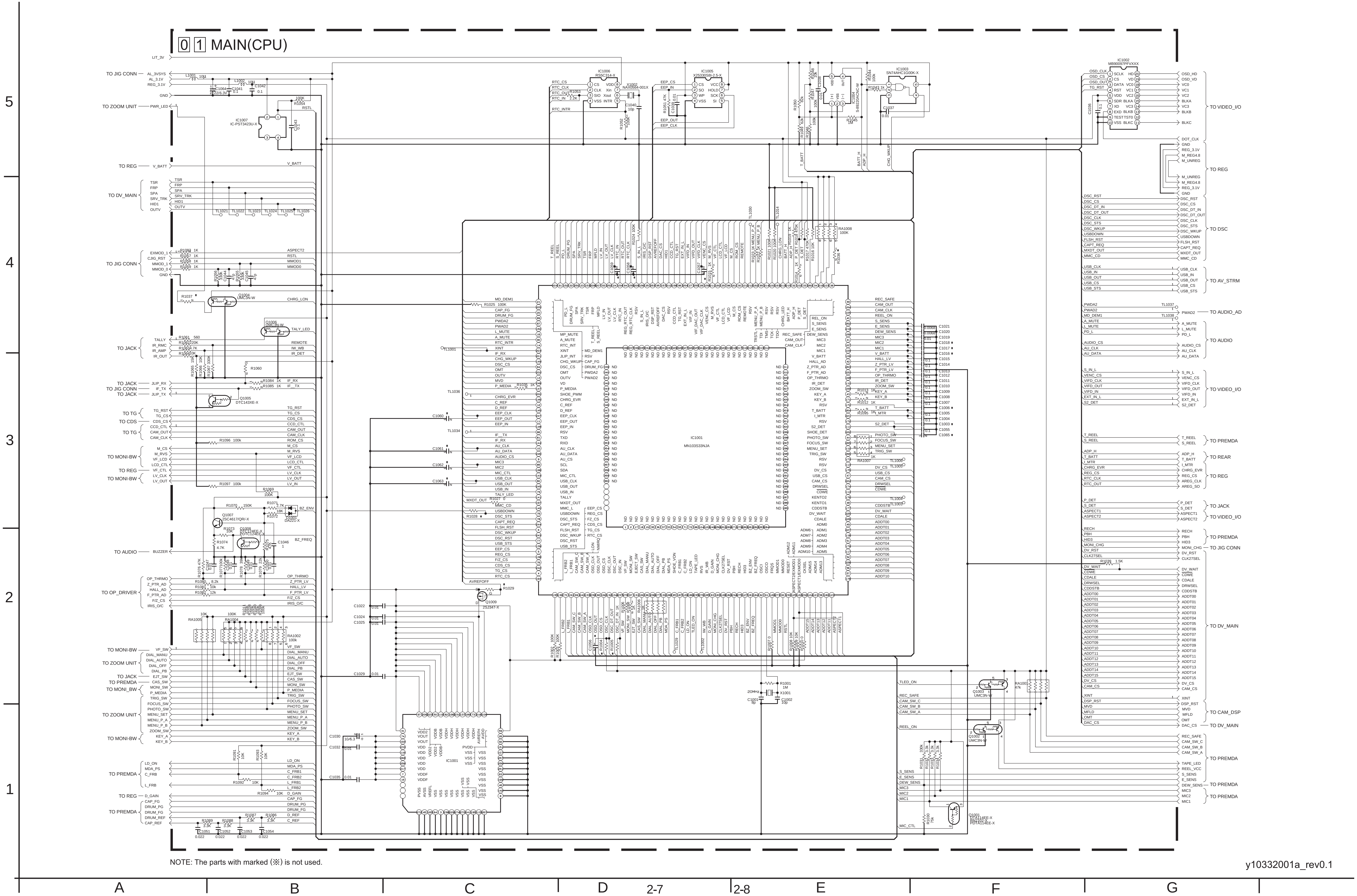
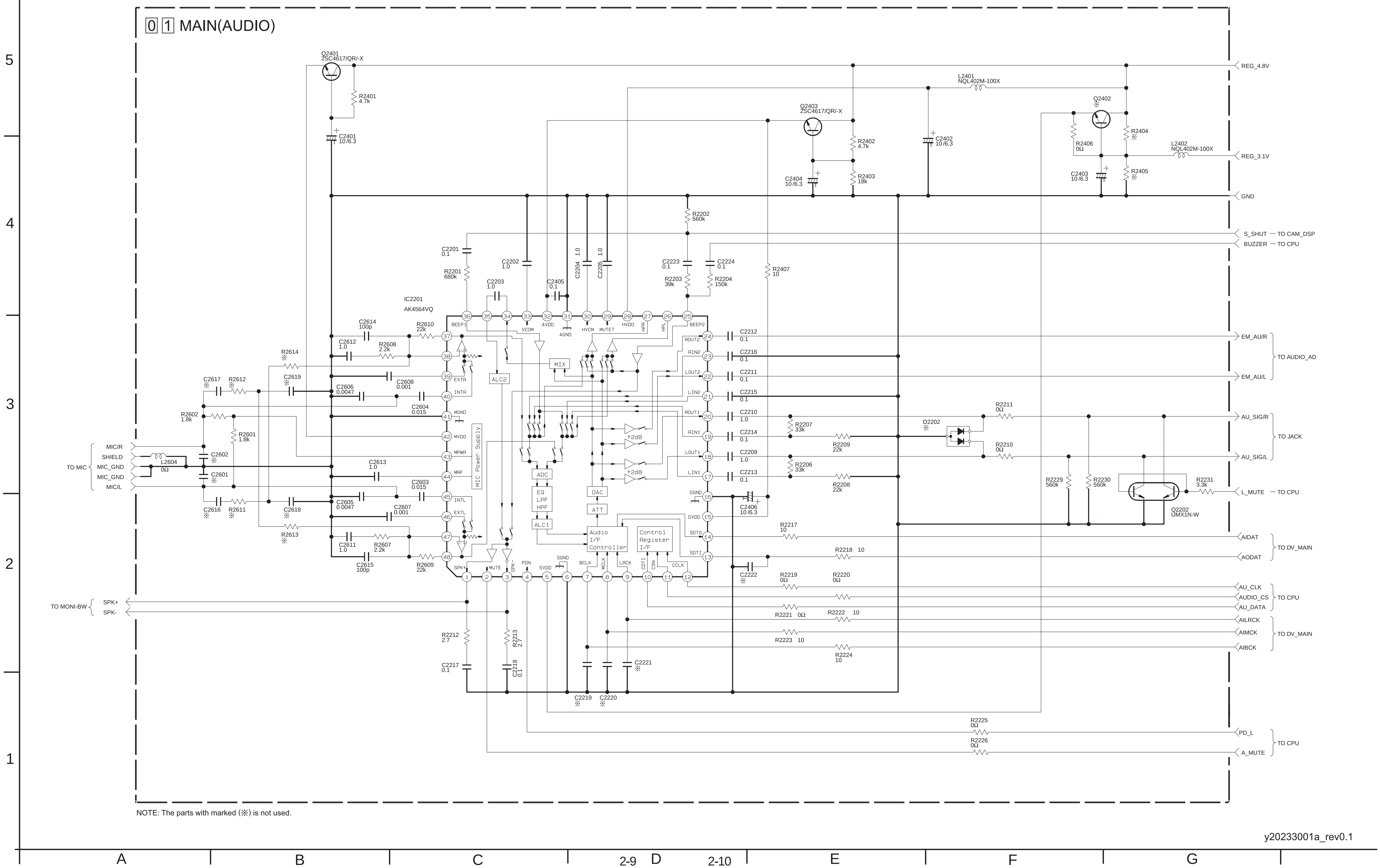
■ CPU SCHEMATIC DIAGRAM



01 MAIN(CPU)
IC1001 MN103S33NJA
IC1002 MB90097PFVXXX
IC1003 SN74AHC1G00K-X
IC1004 S-80920ACNC-W
IC1005 X25330S8I-2.5-X
IC1006 RS5C314-X
IC1007 IC-PST3423U-X
X1001 20MHz
X1002 NAX0564-001X
Q1001 UN5214-X / PDTA114EE-X
Q1002 UMC3N-W
Q1003 UMC3N-W
Q1004 UMC3N-W
Q1005 DTC143XE-X
Q1006 UMC3N-W
Q1007 2SC4617/QR/-X
Q1008 DTC123EE-X
Q1009 2SJ347-X
D1001 DA221-X
TO JIG CONN
TO ZOOM UNIT
TO REG
TO DV_MAIN
TO JACK
TO TG
TO CDS
TO MONI-BW
TO AUDIO
TO OP_DRIVER
TO PREMDA
TO MONI_BW
TO VIDEO_I/O
TO DSC
TO AV_STRM
TO AUDIO_AD
TO REAR
TO CAM_DSP
A
B
C
D
E
F
G
1
2
3
4
5
y10332001a_rev0.1

NOTE: The parts with marked (※) is not used.

■ AUDIO SCHEMATIC DIAGRAM



0 1 MAIN(AUDIO)
Q2401 2SC4617/QR/-X
R2401 4.7k
C2401 10/6.3
Q2403 2SC4617/QR/-X
R2402 4.7k
R2403 18k
C2404 10/6.3
L2401 NQL402M-100X
C2402 10/6.3
Q2402 ※
R2406 0Ω
R2404 ※
R2405 ※
C2403 10/6.3
L2402 NQL402M-100X
REG_4.8V
REG_3.1V
GND
S_SHUT — TO CAM_DSP
BUZZER — TO CPU
R2202 560k
C2201 0.1
R2201 680k
C2202 1.0
C2203 1.0
C2405 0.1
C2204 1.0
C2205 1.0
C2223 0.1
R2203 39k
C2224 0.1
R2204 150k
R2407 10
IC2201 AK4564VQ
BEEP1 VCOM AVDD AGND HVCM MUTET HVDD HPR HPL BEEP2
ROUT2 RIN2 LOUT2 LIN2 ROUT1 RIN1 LOUT1 LIN1 DGND DVDD SDTO SDTI
EXTR INTR MGND MVDD MPWR MRF INTL EXTL
SPK+ MUTE SPK- PDN SVDD SGND BCLK MCLK LRCK CDTI CSN CCLK
MIX ALC2 ADC EQ LPF HPF ALC1 DAC ATT +2dB
MIC Power Supply
Audio I/F Controller
Control Register I/F
C2614 100p
R2610 22k
C2612 1.0
R2608 2.2k
C2608 0.001
C2606 0.0047
C2604 0.015
C2613 1.0
C2603 0.015
C2605 0.0047
C2607 0.001
C2611 1.0
R2607 2.2k
C2615 100p
R2609 22k
R2614 ※
C2619 ※
C2617 ※
R2612 ※
R2602 1.8k
R2601 1.8k
C2602 ※
C2601 ※
L2604 0Ω
C2616 ※
R2611 ※
C2618 ※
R2613 ※
TO MIC
MIC/R
SHIELD
MIC_GND
MIC_GND
MIC/L
TO MONI-BW
SPK+
SPK-
C2212 0.1
C2216 0.1
C2211 0.1
C2215 0.1
C2210 1.0
C2214 0.1
C2209 1.0
C2213 0.1
C2406 10/6.3
R2207 33k
R2206 33k
R2209 22k
R2208 22k
D2202 ※
R2211 0Ω
R2210 0Ω
R2229 560k
R2230 560k
R2231 3.3k
Q2202 UMX1N-W
EM_AU/R
EM_AU/L
TO AUDIO_AD
AU_SIG/R
AU_SIG/L
TO JACK
L_MUTE — TO CPU
R2217 10
R2218 10
C2222 ※
R2219 0Ω
R2220 0Ω
R2221 0Ω
R2222 10
R2223 10
R2224 10
AIDAT
AODAT
TO DV_MAIN
AU_CLK
AUDIO_CS
AU_DATA
TO CPU
AILRCK
AIMCK
AIBCK
TO DV_MAIN
R2212 2.7
R2213 2.7
C2217 0.1
C2218 0.1
C2219 ※
C2220 ※
C2221 ※
R2225 0Ω
R2226 0Ω
PD_L
A_MUTE
TO CPU
5
4
3
2
1
A
B
C
D
E
F
G

NOTE: The parts with marked (※) is not used.

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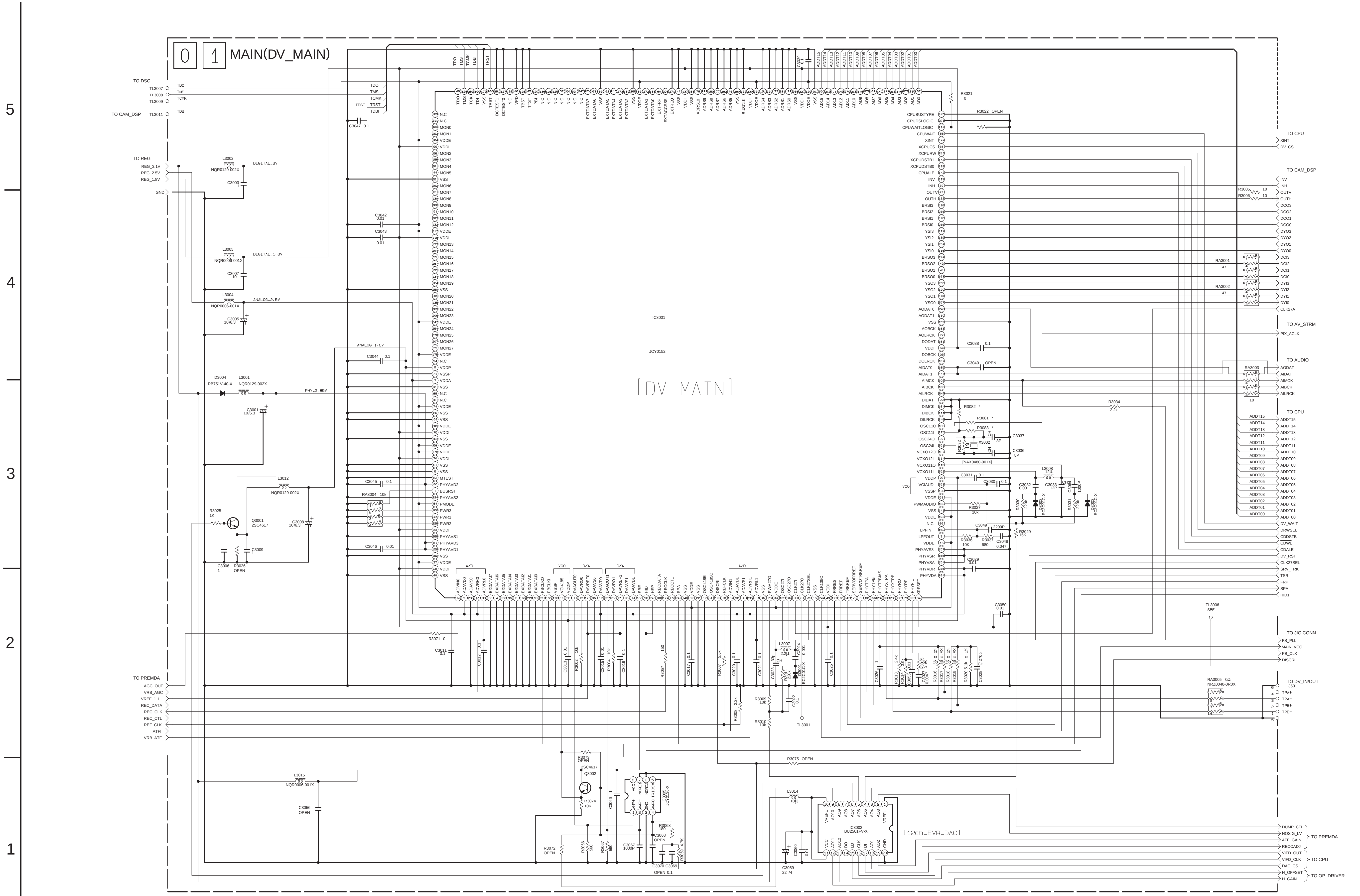
■ DV_MAIN SCHEMATIC DIAGRAM


0 1 MAIN(DV_MAIN)
TO DSC
TL3007 TDO
TL3008 TMS
TL3009 TCMK
TO CAM_DSP — TL3011 TDB
TRST
C3047 0.1
TO REG
REG_3.1V
REG_2.5V
REG_1.8V
GND
L3002 NQR0129-002X
DIGITAL_3V
C3003 1
L3005 NQR0006-001X
DIGITAL_1.8V
C3007 10
L3004 NQR0006-001X
ANALOG_2.5V
C3005 10/6.3
ANALOG_1.8V
D3004 RB751V-40-X
L3001 NQR0129-002X
PHY_2.85V
C3001 10/6.3
L3012 NQR0129-002X
R3025 1K
Q3001 2SC4617
C3008 10/6.3
C3006 1
R3026 OPEN
C3009 1
C3042 0.01
C3043 0.01
C3044 0.1
C3045 0.1
RA3004 10k
C3046 0.01
IC3001
JCY0152
[DV_MAIN]
R3021 0
R3022 OPEN
C3038 0.1
C3040 OPEN
R3082 *
R3081 *
R3083 *
X3002
C3037 8P
C3036 8P
[NAX0480-001X]
C3031 0.1
C3030 0.1
VCO
L3008 12μ
C3032 0.001
C3033 12P
C3034 1000P
R3030 2.2k
R3031 2.2k
R3027 10k
C3049 2200P
R3029 15K
R3036 10K
R3037 680
C3048 0.047
C3029 0.01
C3050 0.01
R3034 2.2k
R3071 0
C3011 0.1
R3073 OPEN
Q3002 2SC4617
R3074 10K
C3056 OPEN
L3015 NQR0006-001X
IC3005 JCY0138-X
R3068 180
C3068 OPEN
C3067 1000P
R3072 OPEN
C3070 C3069 OPEN 0.1
R3009 10k
R3010 10k
R3008 2.2k
L3007 2.2μ
TL3001
R3075 OPEN
L3014 10μ
IC3002 BU2501FV-X
[12ch_EVR_DAC]
C3059 22 /4
C3060 0.1
TO CPU
XINT
DV_CS
TO CAM_DSP
INV
INH
R3005 10 OUTV
R3006 10 OUTH
DCO3
DCO2
DCO1
DCO0
DYO3
DYO2
DYO1
DYO0
RA3001 47
DCI3
DCI2
DCI1
DCI0
RA3002 47
DYI3
DYI2
DYI1
DYI0
CLK27A
TO AV_STRM
PIX_ACLK
TO AUDIO
RA3003 10
AODAT
AIDAT
AIMCK
AIBCK
AILRCK
TO CPU
ADDT15
ADDT14
ADDT13
ADDT12
ADDT11
ADDT10
ADDT09
ADDT08
ADDT07
ADDT06
ADDT05
ADDT04
ADDT03
ADDT02
ADDT01
ADDT00
DV_WAIT
DRWSEL
CDDSTB
CDWE
CDALE
DV_RST
CLK27SEL
SRV_TRK
TSR
FRP
SPA
HID1
TL3006 SBE
TO JIG CONN
FS_PLL
MAIN_VCO
PB_CLK
DISCRI
RA3005 0Ω NRZ0040-0R0X
TO DV_IN/OUT
J501
TPA+
TPA−
TPB+
TPB−
TO PREMDA
AGC_OUT
VRB_AGC
VREF_1.1
REC_DATA
REC_CLK
REC_CTL
REF_CLK
ATFI
VRB_ATF
DUMP_CTL
NOSIG_LV
ATF_GAIN
RECCADJ
TO PREMDA
VIFD_OUT
VIFD_CLK
DAC_CS
TO CPU
H_OFFSET
H_GAIN
TO OP_DRIVER
5
4
3
2
1
A
B
C
D
E
F
G

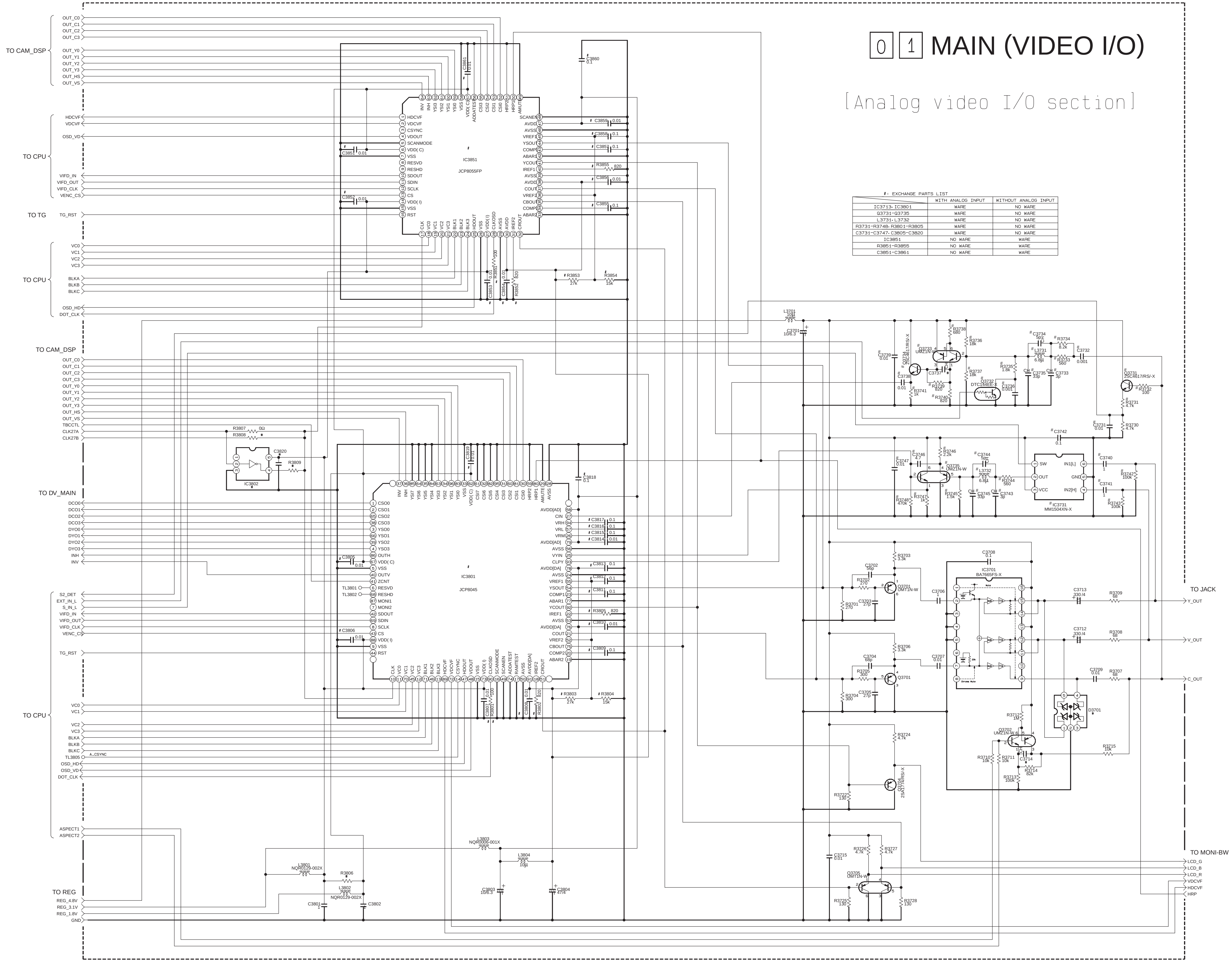
DIFFERENT PARTS LIST

	R3081	R3082	R3083
NON_PIX	OPEN	0Ω	OPEN
PIXELA	470Ω	OPEN	0Ω

NOTE: The parts with marked (∗) is not used.

y10333001a_rev0.1

■ VIDEO I/O SCHEMATIC DIAGRAM


01 MAIN (VIDEO I/O)
[Analog video I/O section]
TO CAM_DSP
OUT_C0
OUT_C1
OUT_C2
OUT_C3
OUT_Y0
OUT_Y1
OUT_Y2
OUT_Y3
OUT_HS
OUT_VS
TO CPU
HDCVF
VDCVF
OSD_VD
VIFD_IN
VIFD_OUT
VIFD_CLK
VENC_CS
TO TG
TG_RST
VC0
VC1
VC2
VC3
BLKA
BLKB
BLKC
OSD_HD
DOT_CLK
TBCCTL
CLK27A
CLK27B
TO DV_MAIN
DCO0
DCO1
DCO2
DCO3
DYO0
DYO1
DYO2
DYO3
INH
INV
S2_DET
EXT_IN_L
S_IN_L
A_CSYNC
TL3805
ASPECT1
ASPECT2
TO REG
REG_4.8V
REG_3.1V
REG_1.8V
GND
IC3851
JCP8055FP
IC3801
JCP8045
IC3802
IC3701
BA7665FS-X
IC3731
MM1504XN-X
Q3701
Q3702
Q3703
Q3704
Q3705
Q3731
Q3732
Q3733
Q3734
Q3735
D3701
L3701
L3731
L3732
L3801
L3802
L3803
L3804
TL3801
TL3802
TO JACK
Y_OUT
V_OUT
C_OUT
TO MONI-BW
LCD_G
LCD_B
LCD_R
VDCVF
HDCVF
HRP

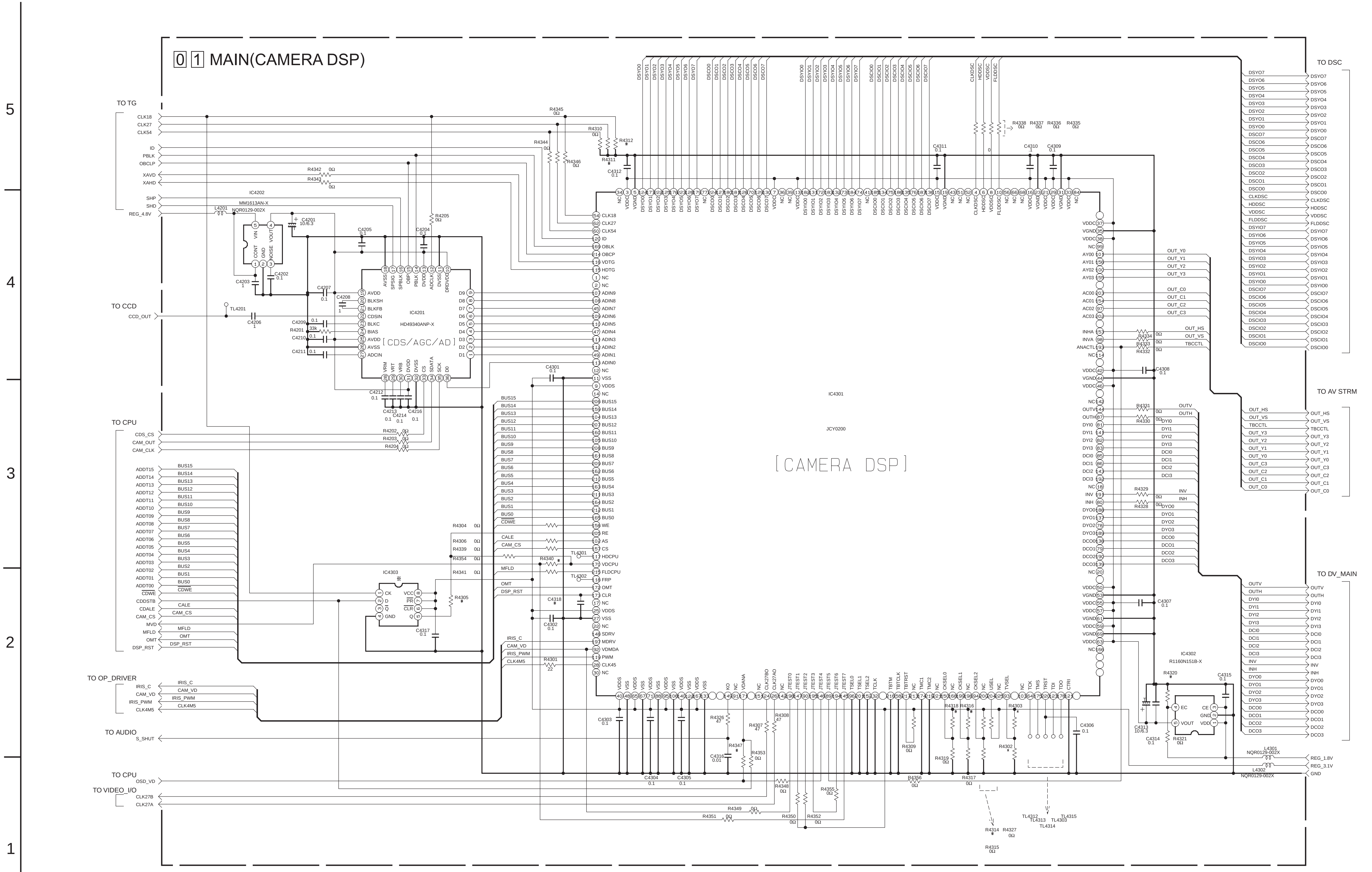
#: EXCHANGE PARTS LIST

	WITH ANALOG INPUT	WITHOUT ANALOG INPUT
IC3713, IC3801	WARE	NO WARE
Q3731-Q3735	WARE	NO WARE
L3731, L3732	WARE	NO WARE
R3731-R3748, R3801-R3805	WARE	NO WARE
C3731-C3747, C3805-C3820	WARE	NO WARE
IC3851	NO WARE	WARE
R3851-R3855	NO WARE	WARE
C3851-C3861	NO WARE	WARE

NOTE: The parts with marked (※) is not used.

y10334001a_rev0.1

■ CAMERA DSP SCHEMATIC DIAGRAM


0 1 MAIN(CAMERA DSP)
TO TG
TO CCD
TO CPU
TO OP_DRIVER
TO AUDIO
TO VIDEO_I/O
TO DSC
TO AV STRM
TO DV_MAIN
IC4201
HD49340ANP-X
[CDS/AGC/AD]
IC4202
MM1613AN-X
IC4303
IC4301
JCY0200
[CAMERA DSP]
IC4302
R1160N151B-X
1
2
3
4
5

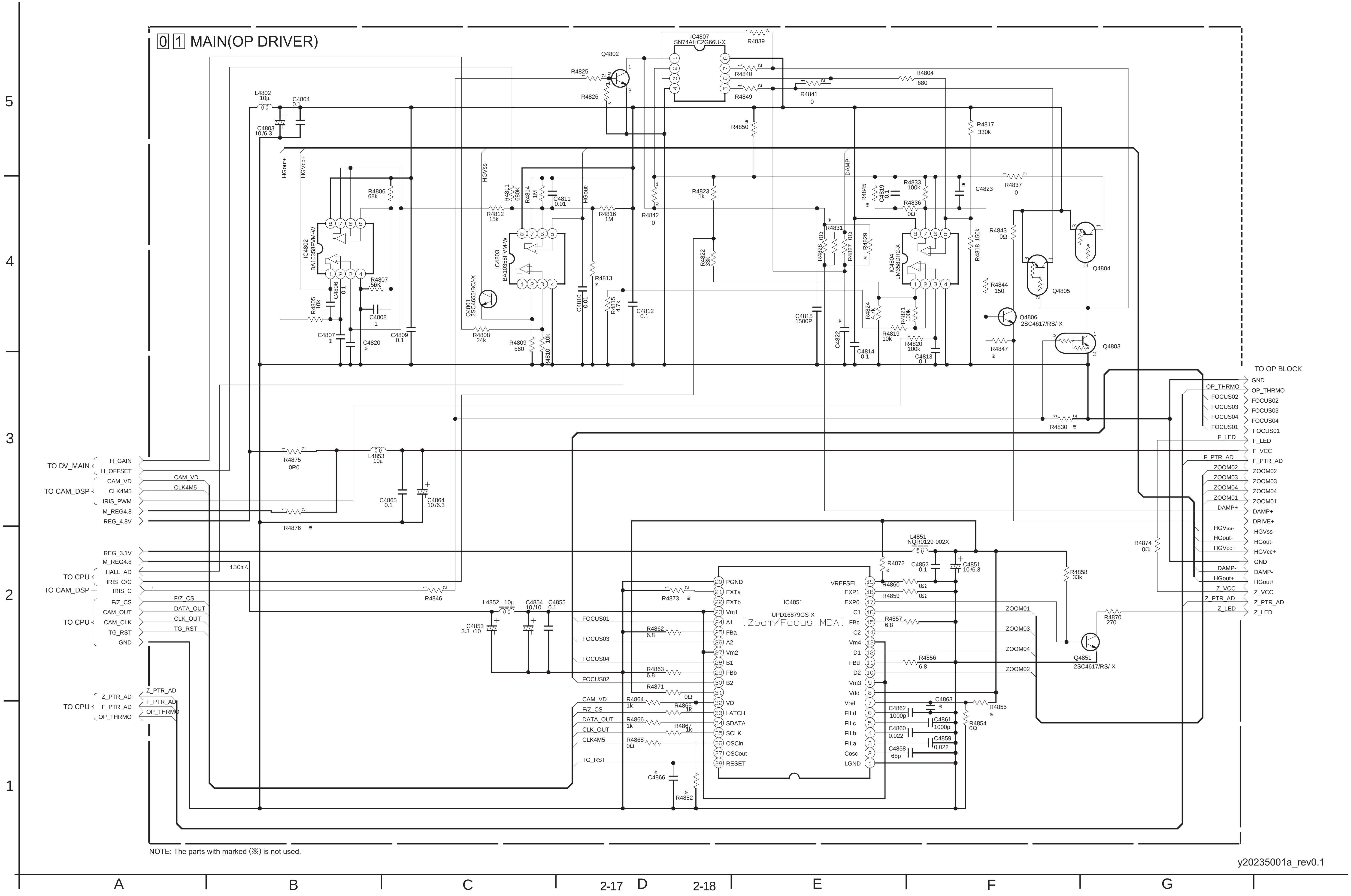
	R4302	R4303
NTSC	0 Ω	※
PAL	※	0 Ω

NOTE: The parts with marked (※) is not used.

y10335001a_rev0.1

A B C D E F G

■ OP DRIVER SCHEMATIC DIAGRAM

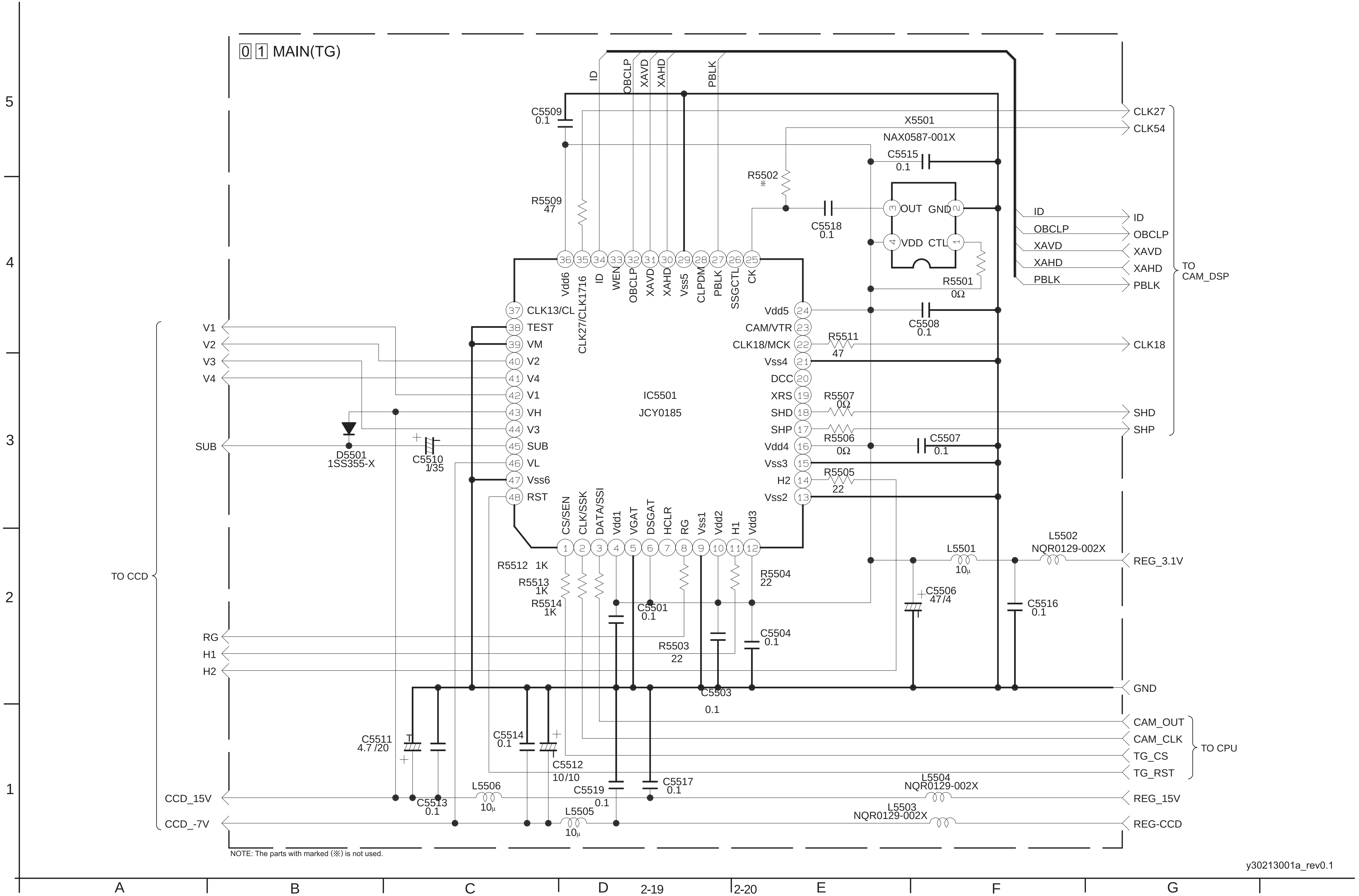


0 1 MAIN(OP DRIVER)
TO DV_MAIN
H_GAIN
H_OFFSET
TO CAM_DSP
CAM_VD
CLK4M5
IRIS_PWM
M_REG4.8
REG_4.8V
REG_3.1V
TO CPU
HALL_AD
IRIS_O/C
IRIS_C
F/Z_CS
CAM_OUT
CAM_CLK
TG_RST
GND
DATA_OUT
CLK_OUT
Z_PTR_AD
F_PTR_AD
OP_THRMO
TO OP BLOCK
GND
OP_THRMO
FOCUS02
FOCUS03
FOCUS04
FOCUS01
F_LED
F_VCC
F_PTR_AD
ZOOM02
ZOOM03
ZOOM04
ZOOM01
DAMP+
DRIVE+
HGVss-
HGout-
HGVcc+
DAMP-
HGout+
Z_VCC
Z_PTR_AD
Z_LED
IC4802 BA10358FVM-W
IC4803 BA10358FVM-W
IC4804 LM358DR2-X
IC4807 SN74AHC2G66U-X
IC4851 UPD16879GS-X
[Zoom/Focus_MDA]
Q4801 2SC4655/BC/-X
Q4802
Q4803
Q4804
Q4805
Q4806 2SC4617/RS/-X
Q4851 2SC4617/RS/-X
L4802 10µ
L4851 NQR0129-002X
L4852 10µ
L4853 10µ
R4875 0R0
R4876 ※
R4846
R4830 ※
R4874 0Ω
R4858 33k
R4870 270
130mA
PGND
EXTa
EXTb
Vm1
A1
FBa
A2
Vm2
B1
FBb
B2
VD
LATCH
SDATA
SCLK
OSCin
OSCout
RESET
VREFSEL
EXP1
EXP0
C1
FBc
C2
Vm4
D1
FBd
D2
Vm3
Vdd
Vref
FILd
FILc
FILb
FILa
Cosc
LGND
1
2
3
4
5
A
B
C
D
E
F
G

NOTE: The parts with marked (※) is not used.

y20235001a_rev0.1

■ TG SCHEMATIC DIAGRAM



0 1 MAIN(TG)
IC5501
JCY0185
36 Vdd6
35 CLK27/CLK1716
34 ID
33 WEN
32 OBCLP
31 XAVD
30 XAHD
29 Vss5
28 CLPDM
27 PBLK
26 SSGCTL
25 CK
37 CLK13/CL
38 TEST
39 VM
40 V2
41 V4
42 V1
43 VH
44 V3
45 SUB
46 VL
47 Vss6
48 RST
1 CS/SEN
2 CLK/SSK
3 DATA/SSI
4 Vdd1
5 VGAT
6 DSGAT
7 HCLR
8 RG
9 Vss1
10 Vdd2
11 H1
12 Vdd3
24 Vdd5
23 CAM/VTR
22 CLK18/MCK
21 Vss4
20 DCC
19 XRS
18 SHD
17 SHP
16 Vdd4
15 Vss3
14 H2
13 Vss2
ID
OBCLP
XAVD
XAHD
PBLK
C5509
0.1
R5509
47
X5501
NAX0587-001X
C5515
0.1
R5502
※
C5518
0.1
3 OUT
GND 2
4 VDD
CTL 1
R5501
0Ω
C5508
0.1
R5511
47
R5507
0Ω
R5506
0Ω
C5507
0.1
R5505
22
L5501
10µ
L5502
NQR0129-002X
C5506
47/4
C5516
0.1
R5512 1K
R5513
1K
R5514
1K
C5501
0.1
R5504
22
C5504
0.1
R5503
22
C5503
0.1
D5501
1SS355-X
C5510
1/35
C5511
4.7 /20
C5513
0.1
L5506
10µ
C5514
0.1
C5512
10/10
C5519
0.1
L5505
10µ
C5517
0.1
L5504
NQR0129-002X
L5503
NQR0129-002X
V1
V2
V3
V4
SUB
RG
H1
H2
TO CCD
CCD_15V
CCD_-7V
CLK27
CLK54
ID
OBCLP
XAVD
XAHD
PBLK
TO CAM_DSP
CLK18
SHD
SHP
REG_3.1V
GND
CAM_OUT
CAM_CLK
TG_CS
TG_RST
TO CPU
REG_15V
REG-CCD
y30213001a_rev0.1
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A
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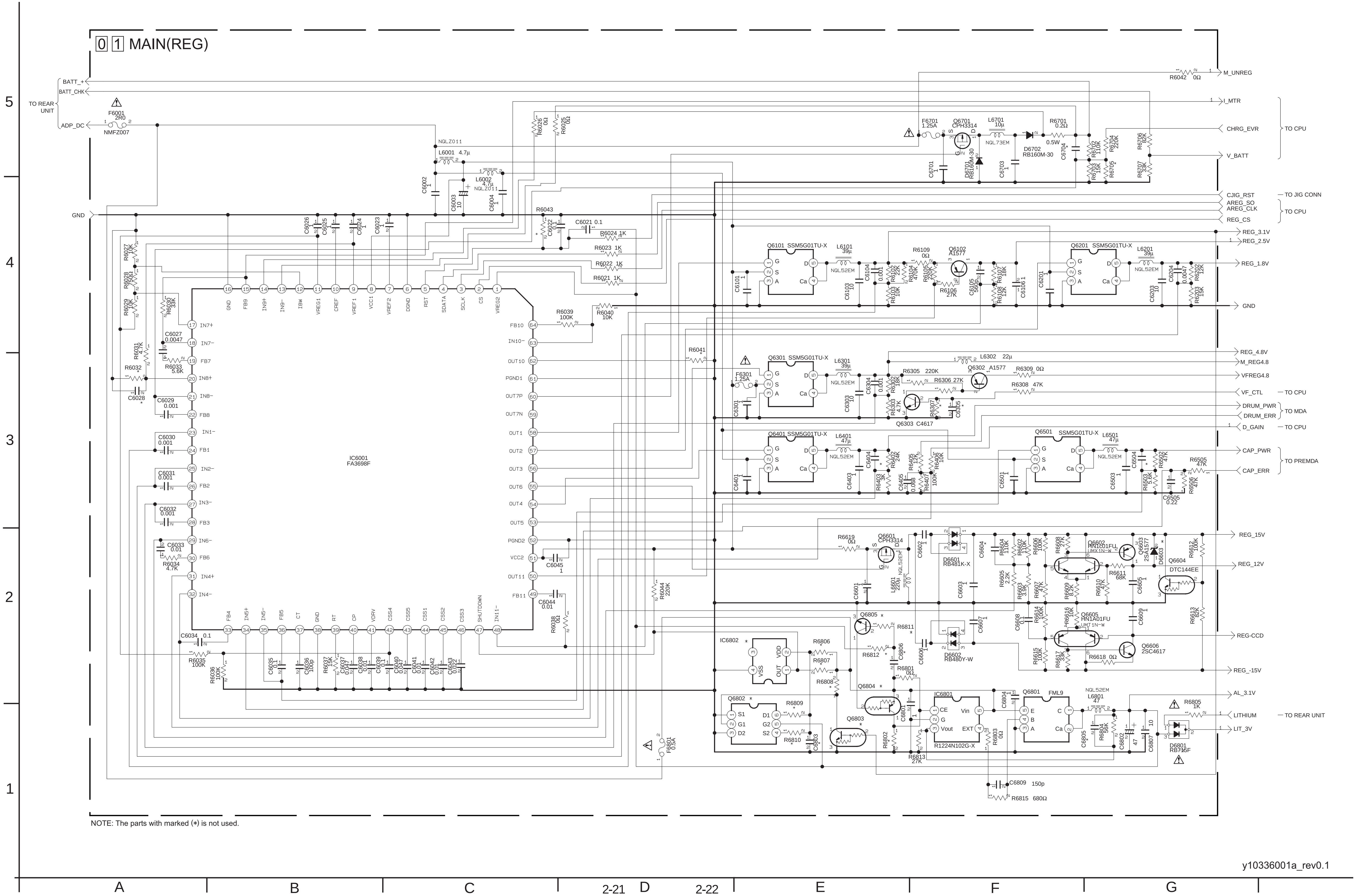
NOTE: The parts with marked (※) is not used.

■ REG SCHEMATIC DIAGRAM



01 MAIN(REG)
TO REAR UNIT
BATT_+
BATT_CHK
ADP_DC
F6001
2R0
NMFZ007
GND
M_UNREG
R6042 0Ω
I_MTR
CHRG_EVR
V_BATT
TO CPU
CJIG_RST
TO JIG CONN
AREG_SO
AREG_CLK
REG_CS
TO CPU
REG_3.1V
REG_2.5V
REG_1.8V
GND
REG_4.8V
M_REG4.8
VFREG4.8
VF_CTL
TO CPU
DRUM_PWR
DRUM_ERR
TO MDA
D_GAIN
TO CPU
CAP_PWR
CAP_ERR
TO PREMDA
REG_15V
REG_12V
REG-CCD
REG_-15V
AL_3.1V
LITHIUM
LIT_3V
TO REAR UNIT
IC6001
FA3698F
NQLZ011
L6001 4.7μ
L6002 4.7μ
C6002 1
C6003 10
C6004 1
R6026 0Ω
R6025 0Ω
R6043
C6021 0.1
C6022 0.1
R6024 1K
R6023 1K
R6022 1K
R6021 1K
R6039 100K
R6040 10K
R6041
R6044 220K
C6045 1
C6044 0.01
R6038 0Ω
C6026 1
C6025 1
C6024 1
C6023 1
R6027 10K
R6028 100K
R6029 10K
R6030 33K
C6027 0.0047
R6031 4.7K
R6032
R6033 5.6K
C6028
C6029 0.001
C6030 0.001
C6031 0.001
C6032 0.001
C6033 0.01
R6034 4.7K
C6034 0.1
R6035 100K
R6036 100K
C6035 0.1
C6036 100p
R6037
C6037 0.047
C6038 0.01
C6039 0.1
C6040 0.047
C6041 0.01
C6042 0.1
C6043 0.022
GND FB9 IN9+ IN9− IBW VREG1 CREF VREF1 VCC1 VREF2 DGND RST SDATA SCLK CS VREG2
IN7+ IN7− FB7 IN8+ IN8− FB8 IN1− FB1 IN2− FB2 IN3− FB3 IN6− FB6 IN4+ IN4−
FB10 IN10− OUT10 PGND1 OUT7P OUT7N OUT1 OUT2 OUT3 OUT6 OUT4 OUT5 PGND2 VCC2 OUT11 FB11
FB4 IN5+ IN5− FB5 CT GND RT CP VDRV CSS4 CSS5 CSS1 CSS2 CSS3 SHUTDOWN IN11−
F6701 1.25A
Q6701 CPH3314
L6701 10μ
NQL73EM
D6701 RB160M-30
D6702 RB160M-30
R6701 0.2Ω
0.5W
C6701 1
C6703 1
C6704 1
R6702 110K
R6703 15K
R6704 220K
R6705 1K
R6706 82K
R6707 33K
Q6101 SSM5G01TU-X
L6101 39μ
NQL52EM
C6101 1
C6103 10
C6104 0.001
R6109 0Ω
Q6102 A1577
R6102 22K
R6103 10K
R6104 470K
R6105 220K
R6106 27K
C6105 560p
R6107 18K
R6108 12K
C6106 1
C6201 1
Q6201 SSM5G01TU-X
L6201 39μ
C6203 10
C6204 0.0047
R6202 12K
R6203 15K
Q6301 SSM5G01TU-X
F6301 1.25A
L6301 39μ
L6302 22μ
C6301 1
C6303 10
C6304 0.001
R6305 220K
R6306 27K
Q6302 A1577
R6309 0Ω
R6308 47K
R6302 18K
R6303 4.7K
R6307
C6305
Q6303 C4617
Q6401 SSM5G01TU-X
L6401 47μ
C6401 1
C6403 10
C6404 0.001
R6402 24K
R6403 3K
R6405 12K
R6406 10K
R6407 100K
C6405 0.068
Q6501 SSM5G01TU-X
L6501 47μ
C6501 1
C6503 10
C6504 1
R6503 5.6K
R6502 47K
R6505 47K
R6506 47K
C6505 0.22
R6619 0Ω
Q6601 CPH3314
L6601 220μ
C6601 1
C6602 1
D6601 RB481K-X
C6603 1
C6604
R6604 110K
R6602 1K
R6605 2.2K
R6606 100K
R6603 3.9K
R6607 1K
R6608 47K
R6609 8.2K
R6610 1K
Q6602 HN1C01FU
R6611 68K
Q6603 2SA1577
D6603
C6605 1
Q6604 DTC144EE
R6612 100K
R6613 82K
C6606 1
C6607 1
D6602 RB480Y-W
C6608 0.1
R6614 100K
R6616 10K
R6615 100K
R6617 330
Q6605 HN1A01FU
R6618 0Ω
C6609 1
Q6606 2SC4617
IC6802
VDD VSS OUT
Q6805
R6811
R6806
R6807
R6812
R6808
C6806
R6801 0Ω
Q6804
IC6801
CE Vin G Vout EXT
R1224N102G-X
C6801
C6804 1
Q6801 FML9
E B A C Ca
NQL52EM
L6801 47
R6805 1K
D6801 RB715F
C6802 47
C6807 10
R6804 56K
C6805
R6803 0Ω
R6802
R6813 27K
C6809 150p
R6815 680Ω
Q6802
S1 G1 D2 D1 G2 S2
R6809
R6810
Q6803
C6803
F6801 0.5A
NOTE: The parts with marked (*) is not used.
5
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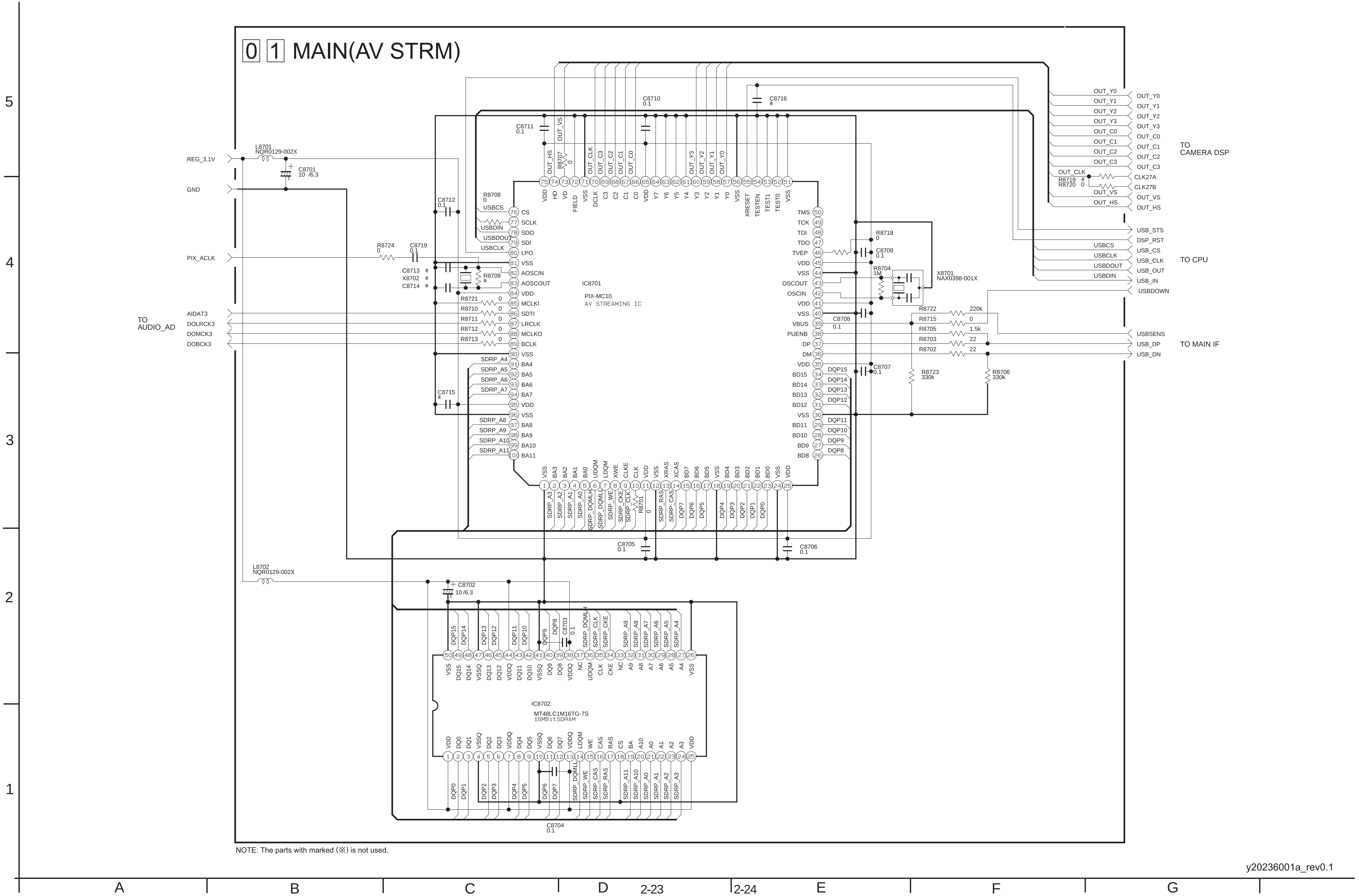
y10336001a_rev0.1

■ AV STRM SCHEMATIC DIAGRAM


0 1 MAIN(AV STRM)
REG_3.1V
GND
PIX_ACLK
TO AUDIO_AD
AIDAT3
DOLRCK3
DOMCK3
DOBCK3
L8701 NQR0129-002X
C8701 10 /6.3
L8702 NQR0129-002X
C8702 10/6.3
IC8701
PIX-MC10
AV STREAMING IC
IC8702
MT48LC1M16TG-7S
16MBitSDRAM
X8701 NAX0398-001X
X8702 ※
R8701 0
R8702 22
R8703 22
R8704 1M
R8705 1.5k
R8706 330k
R8707 0
R8708 0
R8709 ※
R8710 0
R8711 0
R8712 0
R8713 0
R8715 0
R8718 0
R8719 ※
R8720 0
R8721 0
R8722 220k
R8723 330k
R8724 0
C8703 0.1
C8704 0.1
C8705 0.1
C8706 0.1
C8707 0.1
C8708 0.1
C8709 0.1
C8710 0.1
C8711 0.1
C8712 0.1
C8713 ※
C8714 ※
C8715 ※
C8716 ※
C8719 0.1
USBCS
USBDIN
USBDOUT
USBCLK
OUT_HS
OUT_VS
OUT_CLK
OUT_C3
OUT_C2
OUT_C1
OUT_C0
OUT_Y3
OUT_Y2
OUT_Y1
OUT_Y0
SDRP_A0 – SDRP_A11
SDRP_DQMLH
SDRP_DQMLL
SDRP_WE
SDRP_CKE
SDRP_CLK
SDRP_RAS
SDRP_CAS
DQP0 – DQP15
TO CAMERA DSP
OUT_Y0
OUT_Y1
OUT_Y2
OUT_Y3
OUT_C0
OUT_C1
OUT_C2
OUT_C3
CLK27A
CLK27B
OUT_VS
OUT_HS
TO CPU
USB_STS
DSP_RST
USB_CS
USB_CLK
USB_OUT
USB_IN
USBDOWN
TO MAIN IF
USBSENS
USB_DP
USB_DN
76 CS
77 SCLK
78 SDO
79 SDI
80 LPO
81 VSS
82 AOSCIN
83 AOSCOUT
84 VDD
85 MCLKI
86 SDTI
87 LRCLK
88 MCLKO
89 BCLK
90 VSS
91 BA4
92 BA5
93 BA6
94 BA7
95 VDD
96 VSS
97 BA8
98 BA9
99 BA10
100 BA11
75 VDD
74 HD
73 VD
72 FIELD
71 VSS
70 DCLK
69 C3
68 C2
67 C1
66 C0
65 VDD
64 Y7
63 Y6
62 Y5
61 Y4
60 Y3
59 Y2
58 Y1
57 Y0
56 VSS
55 XRESET
54 TESTEN
53 TEST1
52 TEST0
51 VSS
50 TMS
49 TCK
48 TDI
47 TDO
46 TVEP
45 VDD
44 VSS
43 OSCOUT
42 OSCIN
41 VDD
40 VSS
39 VBUS
38 PUENB
37 DP
36 DM
35 VDD
34 BD15
33 BD14
32 BD13
31 BD12
30 VSS
29 BD11
28 BD10
27 BD9
26 BD8
1 VSS
2 BA3
3 BA2
4 BA1
5 BA0
6 UDQM
7 LDQM
8 XWE
9 CLKE
10 CLK
11 VDD
12 VSS
13 XRAS
14 XCAS
15 BD7
16 BD6
17 BD5
18 VSS
19 BD4
20 BD3
21 BD2
22 BD1
23 BD0
24 VSS
25 VDD
IC8702: 50 VSS, 49 DQ15, 48 DQ14, 47 VSSQ, 46 DQ13, 45 DQ12, 44 VDDQ, 43 DQ11, 42 DQ10, 41 VSSQ, 40 DQ9, 39 DQ8, 38 VDDQ, 37 NC, 36 UDQM, 35 CLK, 34 CKE, 33 NC, 32 A9, 31 A8, 30 A7, 29 A6, 28 A5, 27 A4, 26 VSS
1 VDD, 2 DQ0, 3 DQ1, 4 VSSQ, 5 DQ2, 6 DQ3, 7 VDDQ, 8 DQ4, 9 DQ5, 10 VSSQ, 11 DQ6, 12 DQ7, 13 VDDQ, 14 LDQM, 15 WE, 16 CAS, 17 RAS, 18 CS, 19 BA, 20 A10, 21 A0, 22 A1, 23 A2, 24 A3, 25 VDD
5
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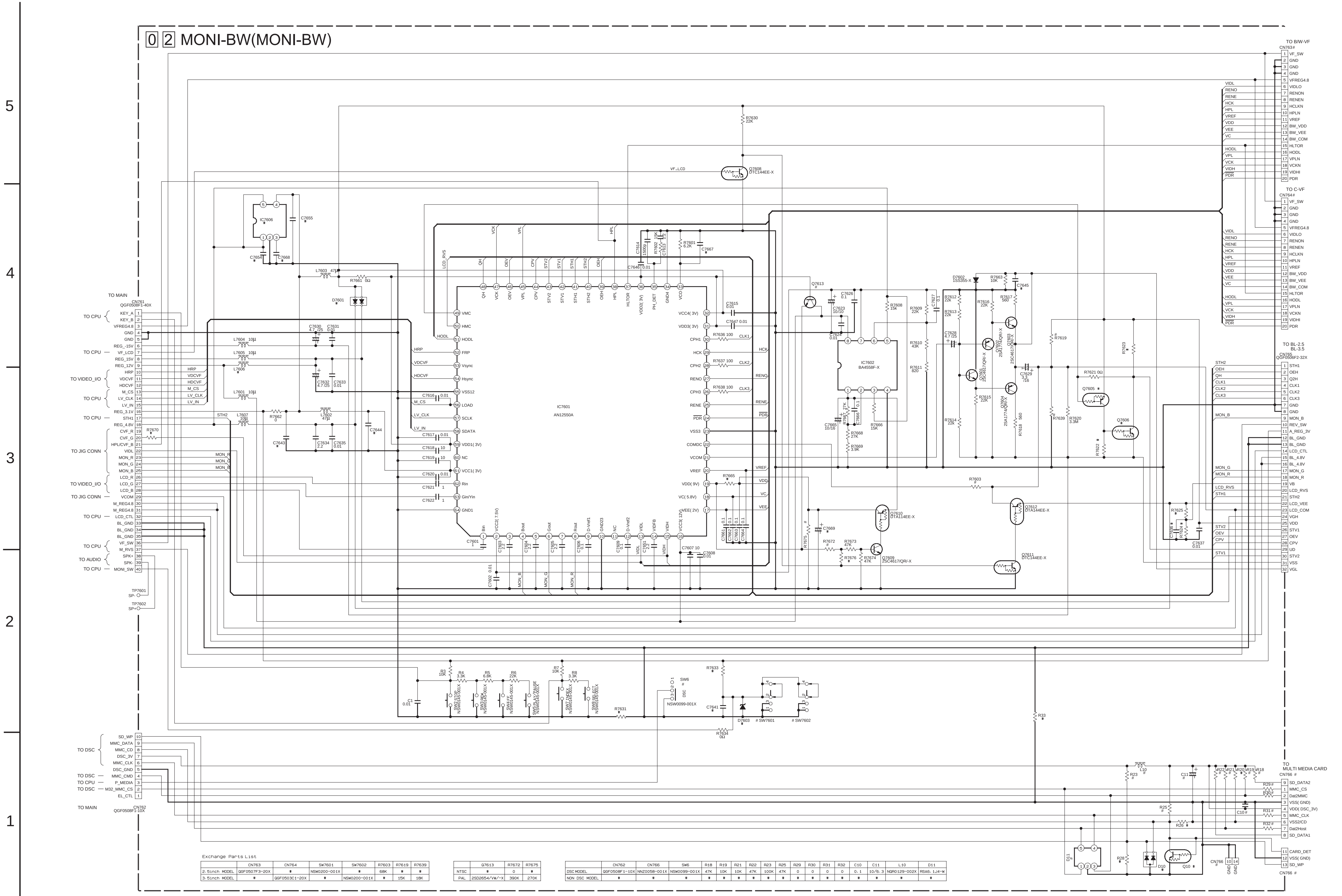
NOTE: The parts with marked (※) is not used.

■ MONI-BW SCHEMATIC DIAGRAM



02 MONI-BW(MONI-BW)
5
4
3
2
1
TO MAIN
CN761
QGF0508F1-40X
TO CPU
TO VIDEO_I/O
TO JIG CONN
TO AUDIO
TO DSC
CN762
QGF0508F1-10X
TO B/W-VF
CN763※
TO C-VF
CN764※
TO BL-2.5
BL-3.5
CN765
QGF0506F2-32X
TO MULTI MEDIA CARD
CN766 ※
IC7601
AN12550A
IC7602
BA4558F-X
IC7606
Q7608
DTC144EE-X
Q7610
DTA114EE-X
Q7609
2SC4617/QR/-X
Q7611
DTC144EE-X
Q7612
DTA144EE-X
D7601
D7602
1SS355-X
D7603
SW6
NSW0099-001X
SW7601
SW7602
TP7601
TP7602

Exchange Parts List

	CN763	CN764	SW7601	SW7602	R7603	R7619	R7639
2.5inch MODEL	QGF0507F3-20X	※	NSW0200-001X	※	68K	※	※
3.5inch MODEL	※	QGF0503C1-20X	※	NSW0200-001X	※	15K	18K

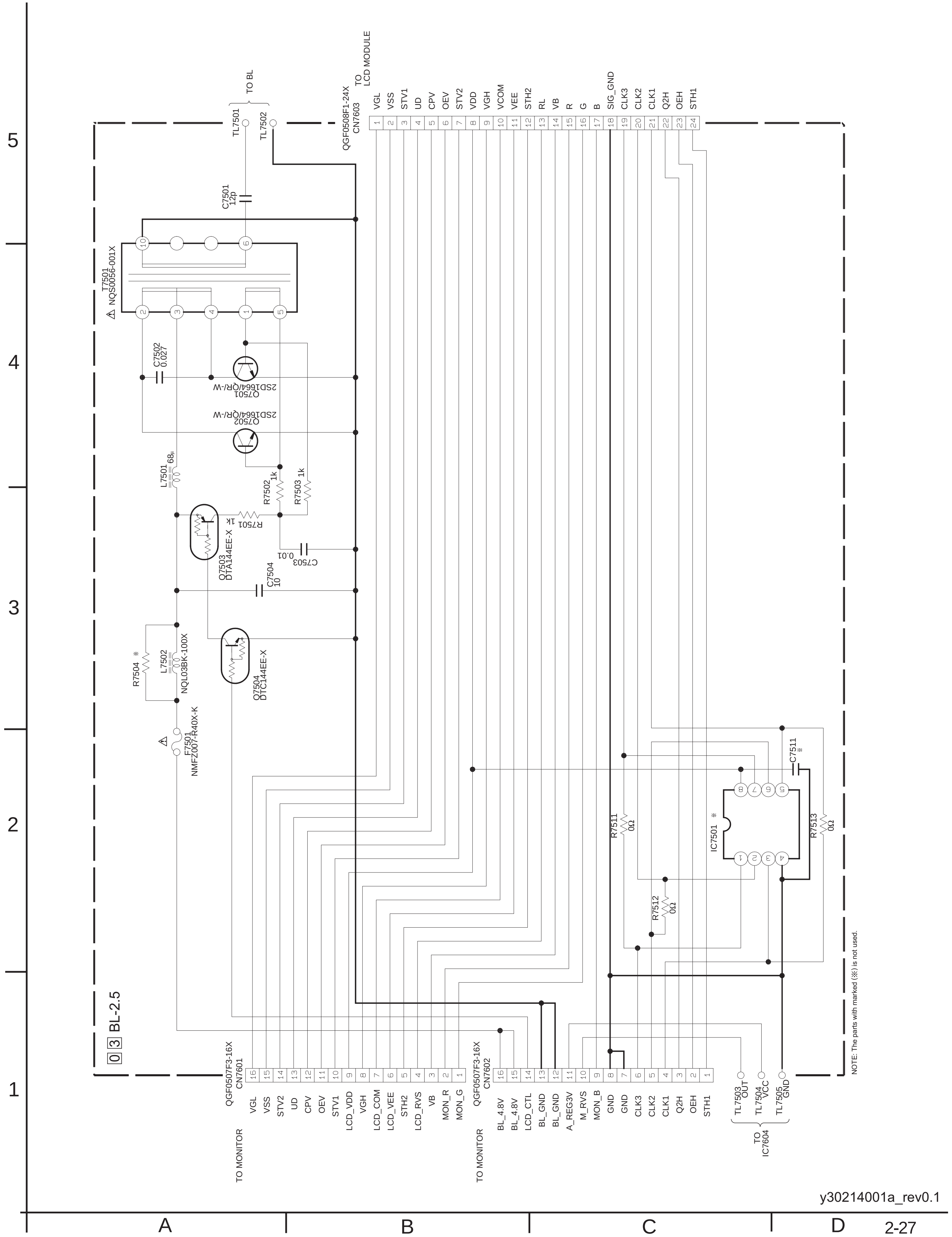
	Q7613	R7672	R7675
NTSC	※	0	※
PAL	2SD2654/VW/-X	390K	270K

	CN762	CN766	SW6	R18	R19	R21	R22	R23	R25	R29	R30	R31	R32	C10	C11	L10	D11
DSC MODEL	QGF0508F1-10X	NNZ0058-001X	NSW0099-001X	47K	10K	10K	47K	100K	47K	0	0	0	0	0.1	10/6.3	NQR0129-002X	RSA6.1J4-W
NON DSC MODEL	※	※	※	※	※	※	※	※	※	※	※	※	※	※	※	※	※

NOTE: The parts with marked (※) is not used.

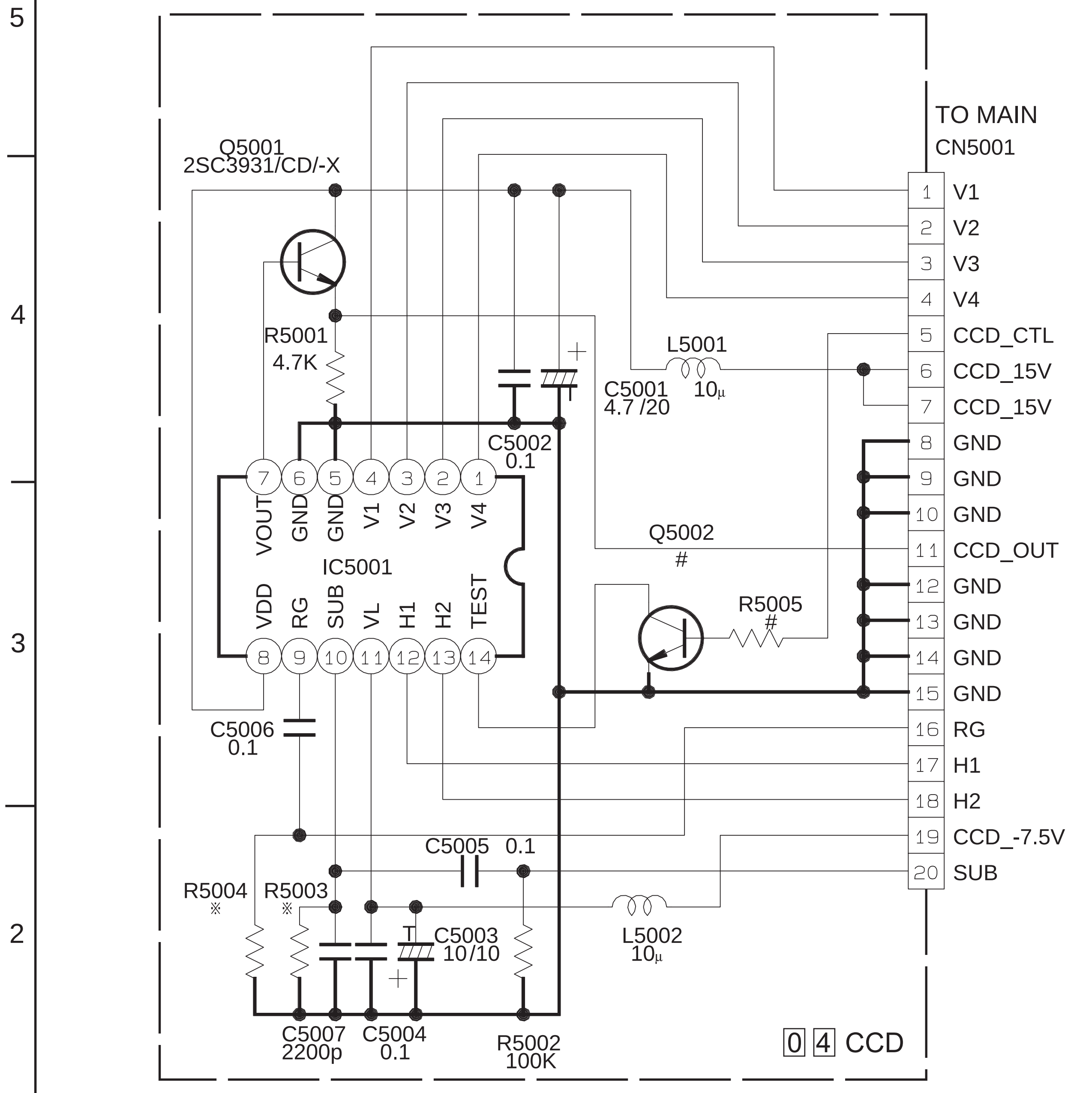
y10337001a_rev0.1

■ BL-2.5 SCHEMATIC DIAGRAM


TO BL
TL7501
TL7502
QGF0508F1-24X
CN7603
TO LCD MODULE
VGL
VSS
STV1
UD
CPV
OEV
STV2
VDD
VGH
VCOM
VEE
STH2
RL
VB
R
G
B
SIG_GND
CLK3
CLK2
CLK1
Q2H
OEH
STH1
C7501 12p
T7501 NQS0056-001X
C7502 0.027
Q7501 2SD1664/QR/-W
Q7502 2SD1664/QR/-W
L7501 68μ
R7502 1k
R7503 1k
R7501 1k
Q7503 DTA144EE-X
C7503 0.01
C7504 10
R7504 ※
L7502 NQL03BK-100X
Q7504 DTC144EE-X
F7501 NMFZ007-R40X-K
C7511 ※
R7511 0Ω
R7512 0Ω
R7513 0Ω
IC7501 ※
NOTE: The parts with marked (※) is not used.
03 BL-2.5
QGF0507F3-16X
CN7601
VGL
VSS
STV2
UD
CPV
OEV
STV1
LCD_VDD
VGH
LCD_COM
LCD_VEE
STH2
LCD_RVS
VB
MON_R
MON_G
TO MONITOR
QGF0507F3-16X
CN7602
BL_4.8V
BL_4.8V
LCD_CTL
BL_GND
BL_GND
A_REG3V
M_RVS
MON_B
GND
GND
CLK3
CLK2
CLK1
Q2H
OEH
STH1
TO MONITOR
TL7503 OUT
TL7504 VCC
TL7505 GND
TO IC7604
1
2
3
4
5
A
B
C
D
y30214001a_rev0.1

■ CCD SCHEMATIC DIAGRAM

NOTES : ● *IC5001 is incorporated in the CCD base assembly.*
When IC 5001 needs replacement, replace the CCD base assembly in whole because it cannot be replaced alone.

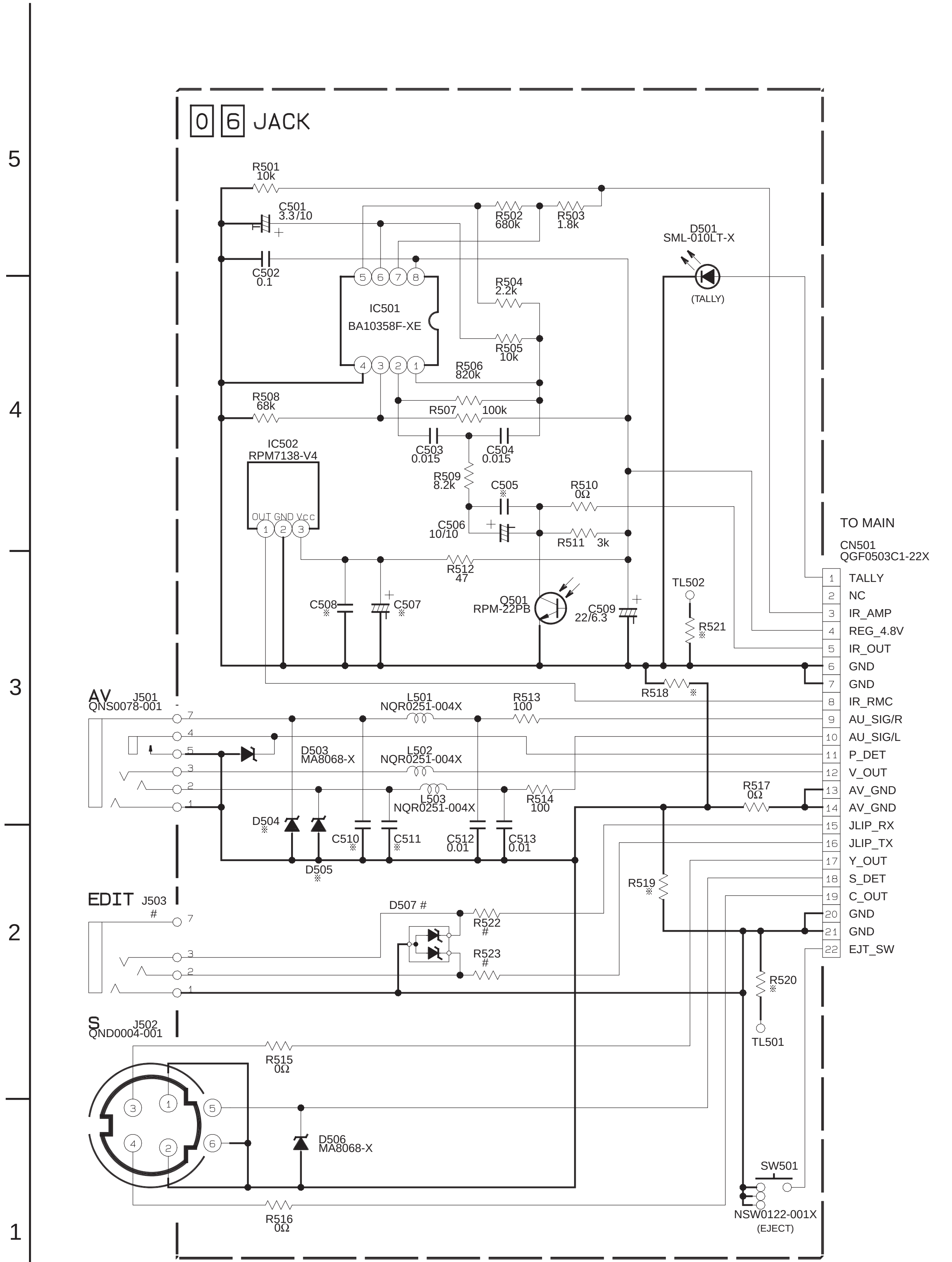

TO MAIN
CN5001
1 V1
2 V2
3 V3
4 V4
5 CCD_CTL
6 CCD_15V
7 CCD_15V
8 GND
9 GND
10 GND
11 CCD_OUT
12 GND
13 GND
14 GND
15 GND
16 RG
17 H1
18 H2
19 CCD_-7.5V
20 SUB
Q5001 2SC3931/CD/-X
R5001 4.7K
C5001 4.7 /20
L5001 10μ
C5002 0.1
IC5001
VOUT
GND
GND
V1
V2
V3
V4
VDD
RG
SUB
VL
H1
H2
TEST
Q5002 #
R5005 #
C5006 0.1
C5005 0.1
R5004 ※
R5003 ※
C5003 10/10
L5002 10μ
C5007 2200p
C5004 0.1
R5002 100K
04 CCD

	Q5002	R5005
DSC MODEL	2SC4081/QR/-X	4.7K
NON DSC MODEL	※	※

NOTE: The parts with marked (※) is not used.

y40106001a_rev0.1

■ JACK SCHEMATIC DIAGRAM


06 JACK
R501 10k
C501 3.3/10
C502 0.1
R502 680k
R503 1.8k
D501 SML-010LT-X
(TALLY)
IC501 BA10358F-XE
R504 2.2k
R505 10k
R506 820k
R508 68k
R507 100k
C503 0.015
C504 0.015
IC502 RPM7138-V4
OUT GND Vcc
R509 8.2k
C505 ※
R510 0Ω
C506 10/10
R511 3k
R512 47
C508 ※
C507 ※
Q501 RPM-22PB
C509 22/6.3
TL502
R521 ※
R518 ※
TO MAIN
CN501 QGF0503C1-22X
1 TALLY
2 NC
3 IR_AMP
4 REG_4.8V
5 IR_OUT
6 GND
7 GND
8 IR_RMC
9 AU_SIG/R
10 AU_SIG/L
11 P_DET
12 V_OUT
13 AV_GND
14 AV_GND
15 JLIP_RX
16 JLIP_TX
17 Y_OUT
18 S_DET
19 C_OUT
20 GND
21 GND
22 EJT_SW
AV J501 QNS0078-001
L501 NQR0251-004X
R513 100
D503 MA8068-X
L502 NQR0251-004X
L503 NQR0251-004X
R514 100
R517 0Ω
D504 ※
C510 ※
C511 ※
C512 0.01
C513 0.01
D505 ※
R519 ※
EDIT J503 #
D507 #
R522 #
R523 #
R520 ※
TL501
S J502 QND0004-001
R515 0Ω
D506 MA8068-X
R516 0Ω
SW501
NSW0122-001X (EJECT)
5
4
3
2
1
A
B
C
D

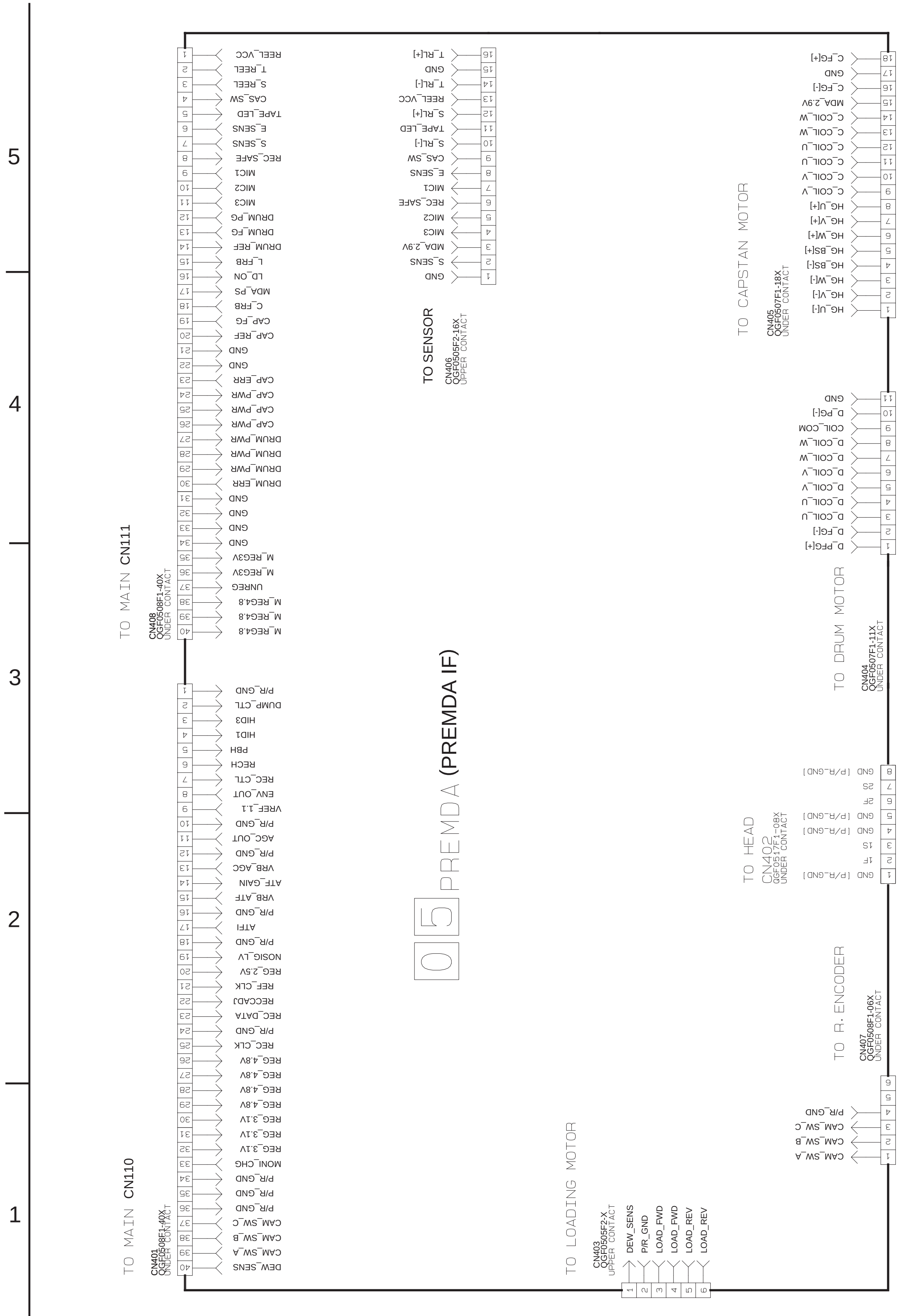
EXCHANGE PARTS LIST

	J503	R522	R523	D507
ON EDIT	PEMC1203 or QNS0147-001	220	330	EMZ6.8N-X
NO EDIT	*	*	*	*

NOTE: The parts with marked (※) is not used.

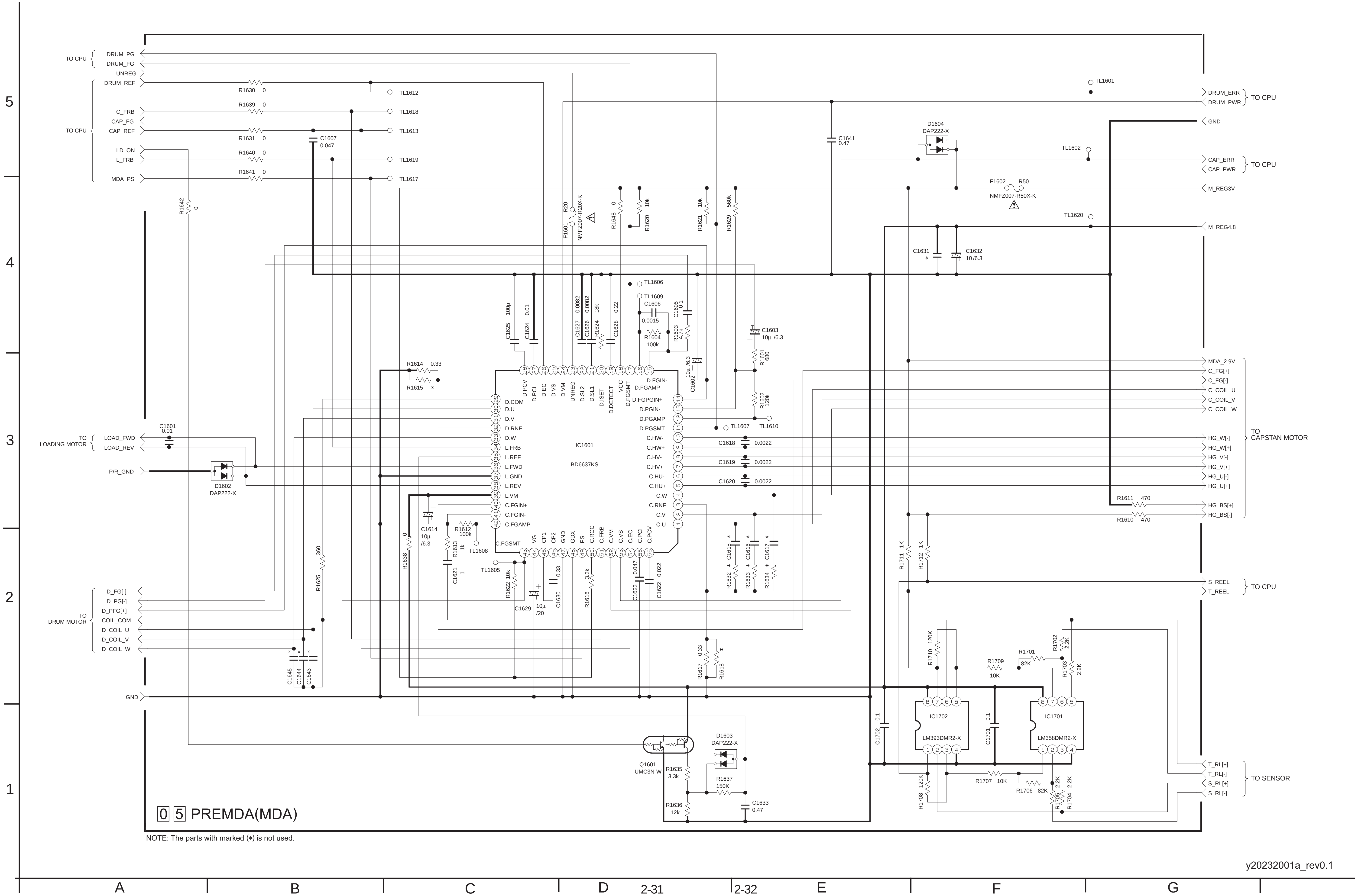
y40103001a_rev0.1

■ PREMDA IF SCHEMATIC DIAGRAM


05 PREMDA (PREMDA IF)
TO MAIN CN111
CN408 QGF0508F1-40X UNDER CONTACT
TO MAIN CN110
CN401 QGF0508F1-40X UNDER CONTACT
TO SENSOR
CN406 QGF0505F2-16X UPPER CONTACT
TO CAPSTAN MOTOR
CN405 QGF0507F1-18X UNDER CONTACT
TO DRUM MOTOR
CN404 QGF0507F1-11X UNDER CONTACT
TO HEAD CN402
QGF0517F1-08X UNDER CONTACT
TO R. ENCODER
CN407 QGF0508F1-06X UNDER CONTACT
TO LOADING MOTOR
CN403 QGF0505F2-X UPPER CONTACT
DEW_SENS
P/R_GND
LOAD_FWD
LOAD_FWD
LOAD_REV
LOAD_REV
5
4
3
2
1
A
B
C
D

y30236001a_rev0.1

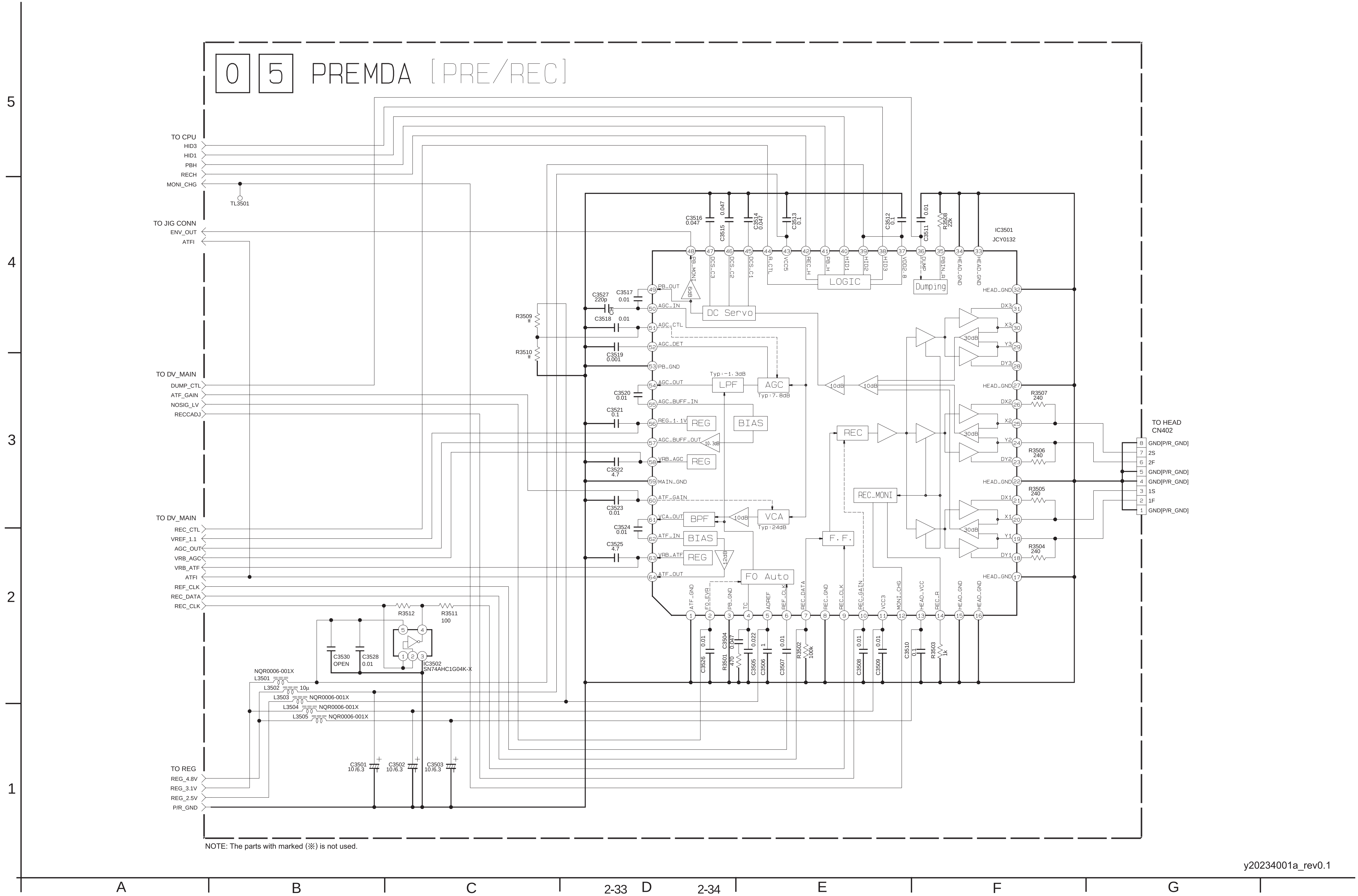
■ MDA SCHEMATIC DIAGRAM


TO CPU
DRUM_PG
DRUM_FG
UNREG
DRUM_REF
C_FRB
CAP_FG
CAP_REF
LD_ON
L_FRB
MDA_PS
R1630 0
R1639 0
R1631 0
R1640 0
R1641 0
C1607 0.047
TL1612
TL1618
TL1613
TL1619
TL1617
R1642 0
TL1601
DRUM_ERR
DRUM_PWR
GND
D1604 DAP222-X
C1641 0.47
TL1602
CAP_ERR
CAP_PWR
F1602 R50 NMFZ007-R50X-K
M_REG3V
TL1620
M_REG4.8
C1631
C1632 10/6.3
F1601 R20 NMFZ007-R20X-K
R1648 0
R1620 10k
R1621 10k
R1629 560k
TL1606
TL1609
C1606 0.0015
R1604 100k
C1605 0.1
R1603 4.7k
C1603 10µ /6.3
R1601 680
R1602 120k
C1602 10µ /6.3
C1625 100p
C1624 0.01
C1627 0.0082
C1626 0.0082
R1624 18k
C1628 0.22
R1614 0.33
R1615 *
IC1601
BD6637KS
D.PCV
D.PCI
D.EC
D.VS
D.VM
UNREG
D.SL2
D.SL1
D.ISET
D.DETECT
VCC
D.FGSMT
D.FGIN-
D.FGAMP
D.FGPGIN+
D.PGIN-
D.PGAMP
D.PGSMT
C.HW-
C.HW+
C.HV-
C.HV+
C.HU-
C.HU+
C.W
C.RNF
C.V
C.U
D.COM
D.U
D.V
D.RNF
D.W
L.FRB
L.REF
L.FWD
L.GND
L.REV
L.VM
C.FGIN+
C.FGIN-
C.FGAMP
C.FGSMT
VG
CP1
CP2
GND
GDX
PS
C.RCC
C.FRB
C.VM
C.VS
C.EC
C.PCI
C.PCV
TL1607
TL1610
C1618 0.0022
C1619 0.0022
C1620 0.0022
MDA_2.9V
C_FG[+]
C_FG[-]
C_COIL_U
C_COIL_V
C_COIL_W
HG_W[-]
HG_W[+]
HG_V[-]
HG_V[+]
HG_U[-]
HG_U[+]
HG_BS[+]
HG_BS[-]
TO CAPSTAN MOTOR
R1611 470
R1610 470
TO LOADING MOTOR
LOAD_FWD
LOAD_REV
C1601 0.01
P/R_GND
D1602 DAP222-X
C1614 10µ /6.3
R1612 100k
R1613 1k
TL1608
C1621 1
TL1605
R1638 0
R1622 10k
C1629 10µ /20
C1630 0.33
R1616 3.3k
C1623 0.047
C1622 0.022
C1615 *
C1616 *
C1617 *
R1632 *
R1633 *
R1634 *
R1625 360
TO DRUM MOTOR
D_FG[-]
D_PG[-]
D_PFG[+]
COIL_COM
D_COIL_U
D_COIL_V
D_COIL_W
C1645 *
C1644 *
C1643 *
GND
R1711 1K
R1712 1K
S_REEL
T_REEL
TO CPU
R1617 0.33
R1618 *
R1710 120K
R1709 10K
R1701 82K
R1702 2.2K
R1703 2.2K
IC1702 LM393DMR2-X
IC1701 LM358DMR2-X
C1702 0.1
C1701 0.1
Q1601 UMC3N-W
D1603 DAP222-X
R1635 3.3k
R1637 150K
R1636 12k
C1633 0.47
R1708 120K
R1707 10K
R1706 82K
R1705 2.2K
R1704 2.2K
T_RL[+]
T_RL[-]
S_RL[+]
S_RL[-]
TO SENSOR
0 5 PREMDA(MDA)
5
4
3
2
1
A
B
C
D
E
F
G

NOTE: The parts with marked (*) is not used.

y20232001a_rev0.1

■ PRE/REC SCHEMATIC DIAGRAM

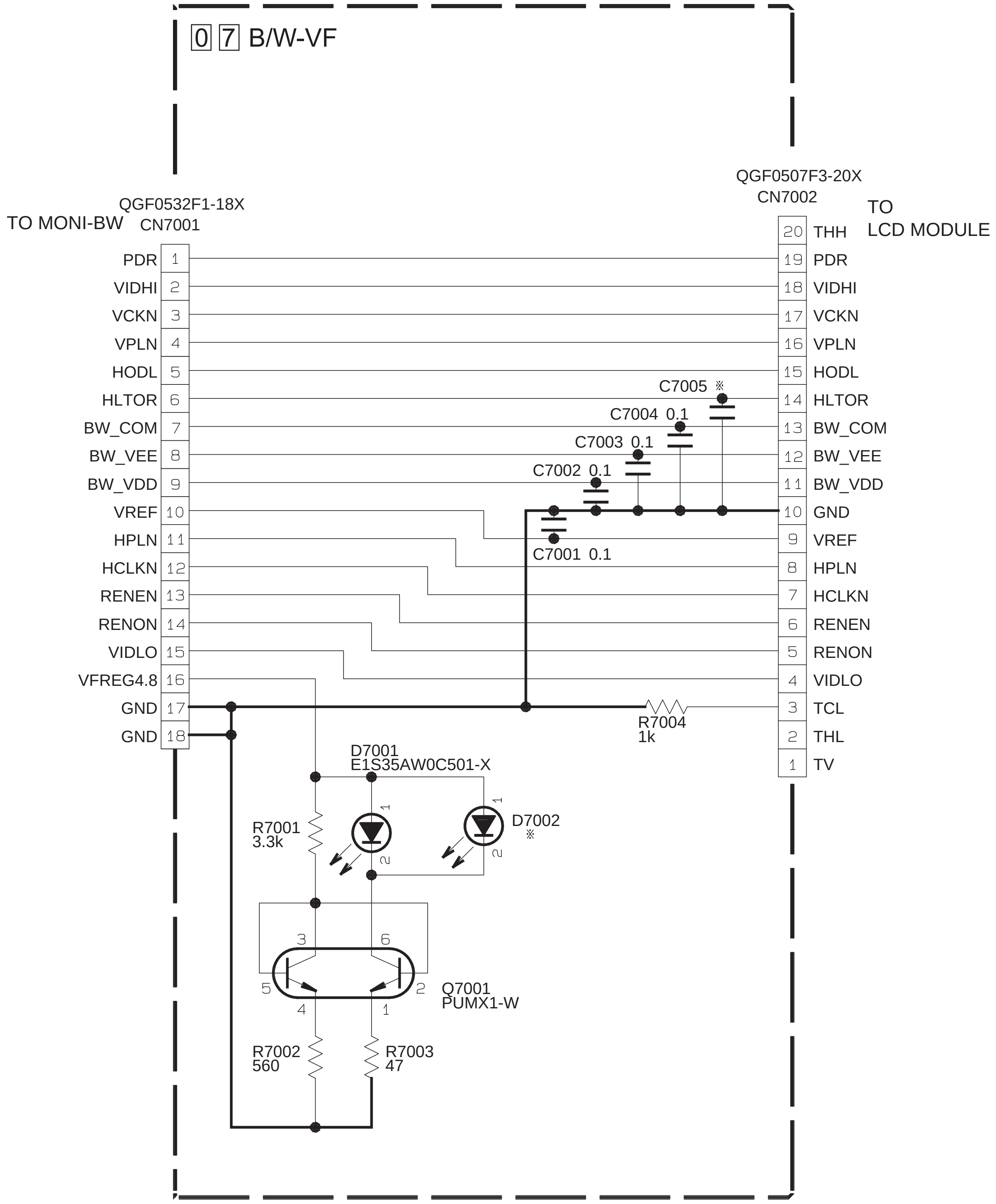


05 PREMDA [PRE/REC]
TO CPU
HID3
HID1
PBH
RECH
MONI_CHG
TL3501
TO JIG CONN
ENV_OUT
ATFI
TO DV_MAIN
DUMP_CTL
ATF_GAIN
NOSIG_LV
RECCADJ
TO DV_MAIN
REC_CTL
VREF_1.1
AGC_OUT
VRB_AGC
VRB_ATF
ATFI
REF_CLK
REC_DATA
REC_CLK
TO REG
REG_4.8V
REG_3.1V
REG_2.5V
P/R_GND
IC3501
JCY0132
PB_MONI
DCS_C3
DCS_C2
DCS_C1
R_CTL
VCC5
REC_H
PB_H
HID1
HID2
HID3
VDD2.8
DUMP
PBIN_R
HEAD_GND
LOGIC
Dumping
DC Servo
PB_OUT
AGC_IN
AGC_CTL
AGC_DET
PB_GND
AGC_OUT
AGC_BUFF_IN
REG_1.1V
AGC_BUFF_OUT
VRB_AGC
MAIN_GND
ATF_GAIN
VCA_OUT
ATF_IN
VRB_ATF
ATF_OUT
LPF
AGC
Typ:-1.3dB
Typ:7.8dB
REG
BIAS
VCA
Typ:24dB
BPF
F0 Auto
F.F.
REC
REC_MONI
10dB
30dB
60dB
12dB
10.3dB
ATF_GND
F0_EVR
PB_GND
TC
ADREF
REF_CLK
REC_DATA
REC_GND
REC_CLK
REC_GAIN
VCC3
MONI_CHG
HEAD_VCC
REC_R
HEAD_GND
DX3
X3
Y3
DY3
DX2
X2
Y2
DY2
DX1
X1
Y1
DY1
TO HEAD
CN402
8 GND[P/R_GND]
7 2S
6 2F
5 GND[P/R_GND]
4 GND[P/R_GND]
3 1S
2 1F
1 GND[P/R_GND]
C3516 0.047
C3515 0.047
C3514 0.047
C3513 0.1
C3512 0.1
C3511 0.01
R3508 22k
C3527 220p CH
C3517 0.01
C3518 0.01
C3519 0.001
R3509 ※
R3510 ※
C3520 0.01
C3521 0.1
C3522 4.7
C3523 0.01
C3524 0.01
C3525 4.7
R3507 240
R3506 240
R3505 240
R3504 240
C3526 0.01
C3504 0.047
R3501 470
C3505 0.022
C3506 1
C3507 0.01
R3502 100k
C3508 0.01
C3509 0.01
C3510 0.1
R3503 1k
R3512
R3511 100
C3530 OPEN
C3528 0.01
IC3502
SN74AHC1G04K-X
NQR0006-001X
L3501
L3502 10µ
L3503 NQR0006-001X
L3504 NQR0006-001X
L3505 NQR0006-001X
C3501 10/6.3
C3502 10/6.3
C3503 10/6.3

NOTE: The parts with marked (※) is not used.

y20234001a_rev0.1

■ B/W-VF SCHEMATIC DIAGRAM

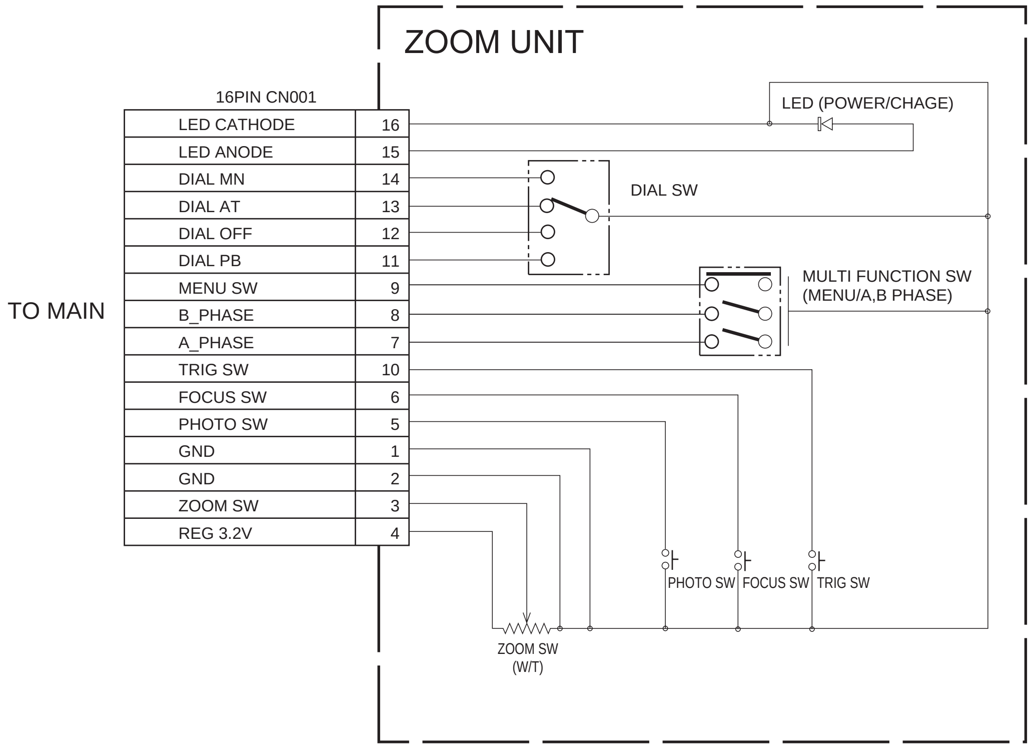

0 7 B/W-VF
TO MONI-BW
QGF0532F1-18X
CN7001
PDR 1
VIDHI 2
VCKN 3
VPLN 4
HODL 5
HLTOR 6
BW_COM 7
BW_VEE 8
BW_VDD 9
VREF 10
HPLN 11
HCLKN 12
RENEN 13
RENON 14
VIDLO 15
VFREG4.8 16
GND 17
GND 18
QGF0507F3-20X
CN7002
TO
LCD MODULE
20 THH
19 PDR
18 VIDHI
17 VCKN
16 VPLN
15 HODL
14 HLTOR
13 BW_COM
12 BW_VEE
11 BW_VDD
10 GND
9 VREF
8 HPLN
7 HCLKN
6 RENEN
5 RENON
4 VIDLO
3 TCL
2 THL
1 TV
C7005 ※
C7004 0.1
C7003 0.1
C7002 0.1
C7001 0.1
R7004
1k
D7001
E1S35AW0C501-X
R7001
3.3k
D7002
※
Q7001
PUMX1-W
R7002
560
R7003
47

NOTE: The parts with marked (※) is not used.

y40104001a_rev0.1

■ ZOOM UNIT SCHEMATIC DIAGRAM

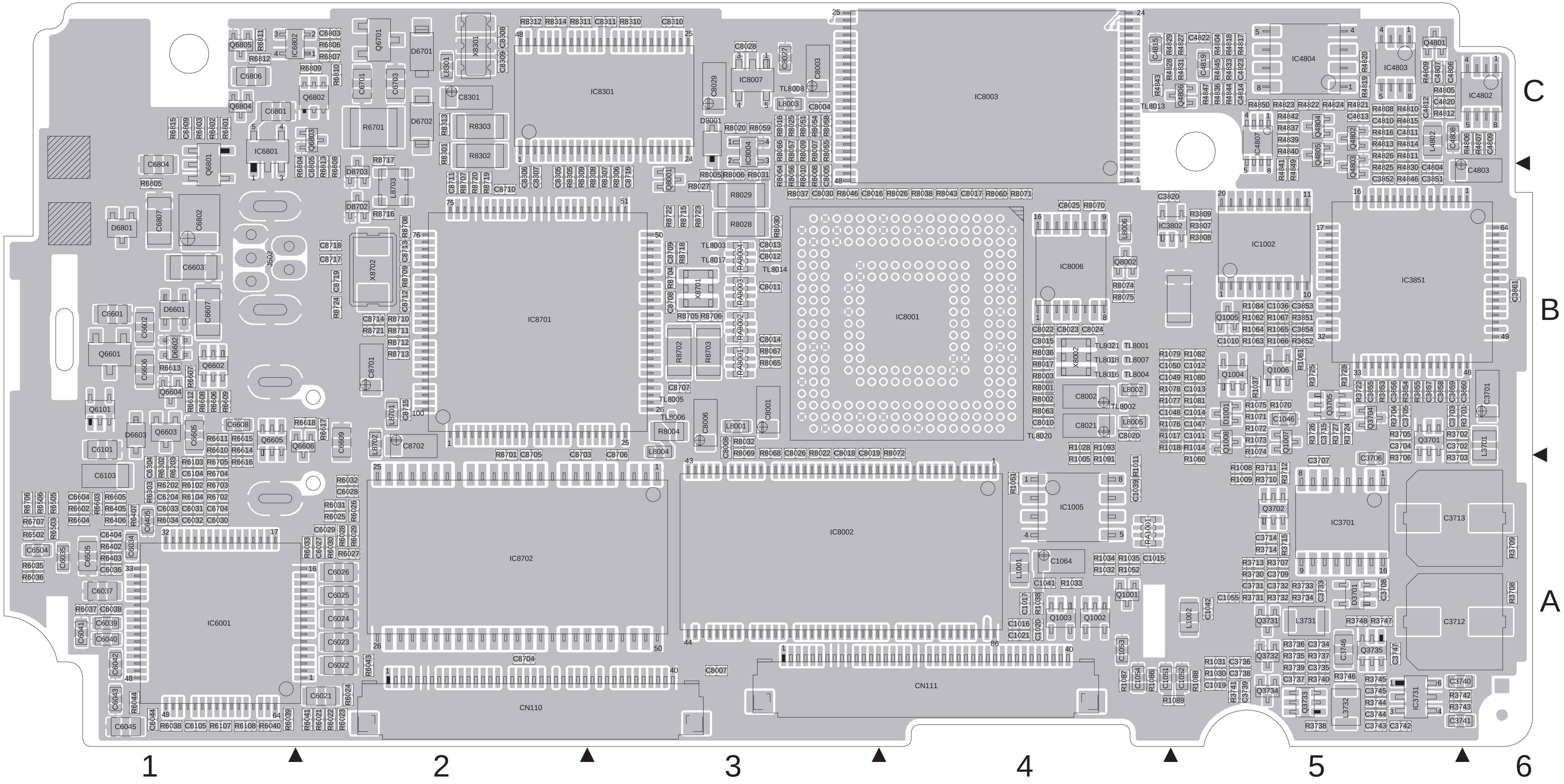
NOTES : ● The schematic diagram is only for reference. Avoid replacing individual parts. Replace the entire unit only.


ZOOM UNIT
TO MAIN
16PIN CN001
LED CATHODE 16
LED ANODE 15
DIAL MN 14
DIAL AT 13
DIAL OFF 12
DIAL PB 11
MENU SW 9
B_PHASE 8
A_PHASE 7
TRIG SW 10
FOCUS SW 6
PHOTO SW 5
GND 1
GND 2
ZOOM SW 3
REG 3.2V 4
LED (POWER/CHAGE)
DIAL SW
MULTI FUNCTION SW
(MENU/A,B PHASE)
PHOTO SW
FOCUS SW
TRIG SW
ZOOM SW
(W/T)

■ MAIN CIRCUIT BOARD

<01> MAIN
YB 10404-01-01

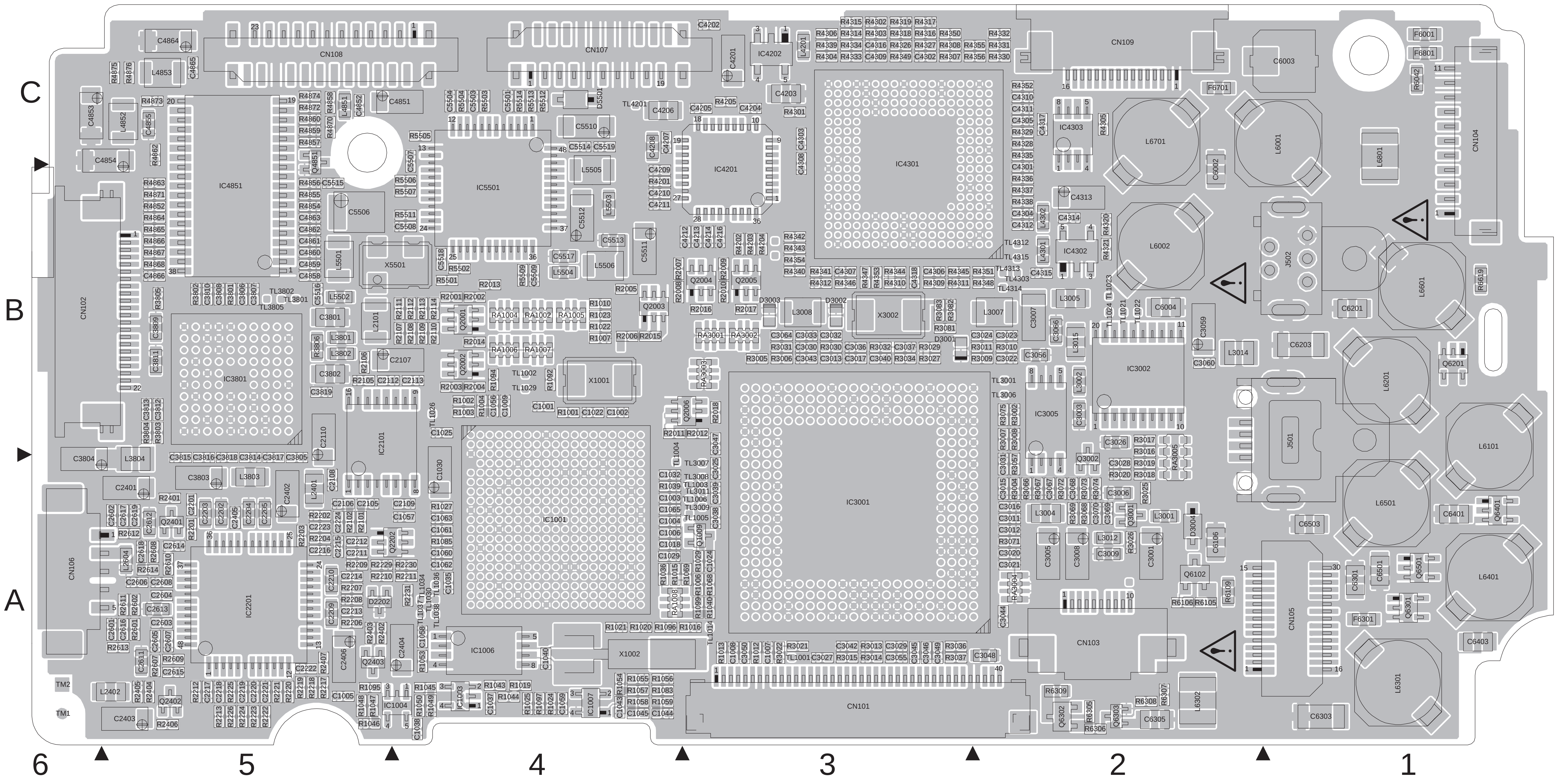
FOIL SIDE(B)


IC8301
IC8003
IC4804
IC4803
IC4802
IC6801
IC8007
IC8701
IC8001
IC8006
IC1002
IC3851
IC3802
IC8702
IC8002
IC1005
IC3701
IC6001
IC3731
CN110
CN111
X8301
X8701
X8702
X8002
C3713
C3712
C
B
A
1
2
3
4
5
6

■ MAIN CIRCUIT BOARD

<01> MAIN
YB 10404-01-01

COMPONENT SIDE(A)


C
B
A
6
5
4
3
2
1
CN108
CN107
CN109
CN104
CN102
CN106
CN101
CN103
CN105
IC4851
IC5501
IC4201
IC4301
IC3801
IC2101
IC1001
IC3001
IC3002
IC3005
IC2201
IC1006
IC4303
IC4302
IC4202
X5501
X1001
X1002
X3002
J501
J502
L6701
L6001
L6002
L6601
L6201
L6101
L6501
L6401
L6301
L6801
TM1
TM2

COMPONENT PARTS LOCATION GUIDE <MAIN> YB 10404-01-01

REF.NO.	LOCATION
CAPACITOR	
C1001	A C 4B
C1002	A C 4B
C1003	A C 4A
C1004	A C 4A
C1005	A C 5A
C1006	A C 4A
C1007	A C 3A
C1008	A C 3A
C1009	A C 4B
C1010	B C 5B
C1011	B C 5B
C1012	B C 5B
C1013	B C 5B
C1014	B C 5B
C1015	B C 4A
C1016	B C 4A
C1017	B C 4A
C1018	A C 4A
C1019	B C 5A
C1020	B C 4A
C1021	B C 4A
C1022	A C 4B
C1024	A C 3A
C1025	A C 4B
C1029	A C 4A
C1030	A C 4A
C1032	A C 4A
C1035	A C 4A
C1036	B C 5B
C1037	A C 4A
C1038	A C 4A
C1039	B C 4A
C1040	A C 4A
C1041	B C 4A
C1042	B C 5A
C1043	A C 4A
C1044	A C 4A
C1045	A C 4A
C1046	B C 5B
C1047	B C 5B
C1048	B C 5B
C1049	B C 5B
C1050	B C 5B
C1051	B C 4A
C1052	B C 5A
C1053	B C 4A
C1054	B C 4A
C1055	B C 5A
C1056	A C 4B
C1057	A C 4A
C1058	A C 4A
C1059	A C 4A
C1060	A C 4A
C1061	A C 4A
C1062	A C 4A
C1063	A C 4A
C1064	B C 4A
C1065	A C 4A
C2105	A C 5A
C2106	A C 5A
C2107	A C 4B
C2108	A C 5A
C2109	A C 4A
C2110	A C 5B
C2112	A C 5B
C2113	A C 4B
C2201	A C 5A
C2202	A C 5A
C2203	A C 5A
C2204	A C 5A
C2205	A C 5A
C2209	A C 5A
C2210	A C 5A
C2211	A C 5A
C2212	A C 5A
C2213	A C 5A
C2214	A C 5A
C2215	A C 5A
C2216	A C 5A
C2217	A C 5A
C2218	A C 5A
C2219	A C 5A
C2220	A C 5A
C2221	A C 5A
C2222	A C 5A
C2223	A C 5A
C2224	A C 5A
C2401	A C 5A
C2402	A C 5A
C2403	A C 5A
C2404	A C 4A
C2405	A C 5A
C2406	A C 5A
C2601	A C 5A
C2602	A C 5A
C2603	A C 5A
C2604	A C 5A
C2605	A C 5A
C2606	A C 5A
C2607	A C 5A
C2608	A C 5A
C2611	A C 5A
C2612	A C 5A
C2613	A C 5A
C2614	A C 5A
C2615	A C 5A
C2616	A C 5A
C2617	A C 5A
C2618	A C 5A
C2619	A C 5A
C3001	A C 2A
C3003	A C 2B
C3005	A C 2A
C3006	A C 2A
C3007	A C 2B
C3008	A C 2A
C3009	A C 2A
C3011	A C 2A
C3012	A C 2A
C3013	A C 3B
C3015	A C 2A
C3016	A C 2A
C3017	A C 3B
C3020	A C 2A
C3021	A C 2A
C3022	A C 2B
C3023	A C 2B
C3024	A C 2B
C3025	A C 3A
C3026	A C 2B
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CN109	A C 2C
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D3003	A C 3B
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D3701	B C 5A
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R8311	B C 2C
R8312	B C 2C
R8313	B C 2C
R8314	B C 2C
R8701	B C 2B
R8702	B C 3B
R8703	B C 3B
R8704	B C 3B
R8705	B C 3B
R8706	B C 3B
R8707	B C 2B
R8708	B C 2B
R8709	B C 2B

REF.NO.	LOCATION
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R8712	B C 2B
R8713	B C 2B
R8715	B C 3B
R8716	B C 2B
R8717	B C 2C
R8718	B C 3B
R8719	B C 2B
R8720	B C 2B
R8721	B C 2B
R8722	B C 3B
R8723	B C 3B
R8724	B C 2B
RA1001	B C 4A
RA1002	A C 4B
RA1004	A C 4B
RA1005	A C 4B
RA1006	A C 4B
RA1007	A C 4B
RA1008	A C 4A
RA3001	A C 3B
RA3002	A C 3B
RA3003	A C 3B
RA3004	A C 2A
RA3005	A C 2A
RA8001	B C 3B
RA8002	B C 3B
RA8003	B C 3B
RA8004	B C 3B
OTHER	
J501	A C 1B
J502	A D 1B
TL1001	A C 3A
TL1002	A C 4B
TL1003	A C 3A
TL1004	A C 4A
TL1005	A C 3A
TL1006	A C 3A
TL1014	A C 3A
TL1021	A C 2B
TL1022	A C 2B
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TL3006	A C 2B
TL3007	A C 3A
TL3008	A C 3A
TL3009	A C 3A
TL3011	A C 3A
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TL3802	A C 5B
TL3805	A C 5B
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TL4302	A C 3B
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TL8020	B C 4B
TL8021	B C 4B
TM1	A C 6A
TM2	A C 6A
TM5	A C 1A
TP110	B C 5B
X1001	A C 4B
X1002	A C 4A
X3002	A C 3B
X5501	A C 4B
X8002	B C 4B
X8301	B C 2C
X8701	B C 3B
X8702	B C 2B

COMPONENT PARTS LOCATION GUIDE <PREMDA> YB 10405-01-01

REF.NO.	LOCATION
CAPACITOR	
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C1602	A C 3B
C1603	A C 3B
C1605	A C 3B
C1606	A C 3B
C1607	A C 4B
C1614	A C 3C
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C1616	A C 3B
C1617	A C 3B
C1618	A C 3B
C1619	A C 3B
C1620	A C 3B
C1621	A C 3C
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C1624	A C 3B
C1625	A C 3B
C1626	A C 3B
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C1633	A C 4B
C1641	A C 3A
C1643	A C 3C
C1644	A C 3C
C1645	A C 3C
C1701	A C 3A
C1702	A C 4A
C3501	A C 2B
C3502	A C 2B
C3503	A C 2B
C3504	A C 2B
C3505	A C 2B
C3506	A C 2B
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C3524	A C 2B
C3525	A C 2B
C3526	A C 2B
C3527	A C 2B
C3528	A C 1B
C3530	A C 1B
CONNECTOR	
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CN402	A C 2C
CN403	A C 1B
CN404	A C 3C
CN405	A C 3C
CN406	A C 3B
CN407	A C 1B
CN408	A C 3A
DIODE	
D1602	A C 1B
D1603	A C 4B
D1604	A C 3A
FUSE	
F1601	A C 3A
F1602	A C 3A
IC	
IC1601	A C 3B
IC1701	A C 3A
IC1702	A C 4A
IC3501	A C 2B
IC3502	A C 1B
COIL	
L3501	A C 2A
L3502	A C 2A
L3503	A C 2A
L3504	A C 2A
L3505	A C 2A
TRANSISTOR	
Q1601	A C 4B
RESISTOR	
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R1603	A C 3B
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R1610	A C 3C
R1611	A C 4C
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R3509	A C 2B
R3510	A C 2B
R3511	A C 1B
R3512	A C 1B
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TL1602	A C 3A
TL1605	A C 3B
TL1606	A C 3A
TL1607	A C 3B
TL1608	A C 3C
TL1609	A C 3B
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TL1612	A C 4B
TL1613	A C 3B
TL1617	A C 4B
TL1618	A C 4B
TL1619	A C 4B
TL1620	A C 3A
TL3501	A C 2A
TM2	A C 4C
TM4	A C 4C
ZP1-1	A C 2B
ZP3-3	A C 1B
ZP3-5	A C 1B
ZP4-1	A C 3C
ZP4-2	A C 3A
ZP4-3	A C 3C
ZP4-5	A C 3C
ZP4-7	A C 3C
ZP4-9	A C 3C
ZP5-1	A C 3C
ZP5-2	A C 3C
ZP5-3	A C 3C
ZP5-4	A C 3C
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ZP5-6	A C 3C
ZP5-7	A C 3C
ZP5-8	A C 3C
ZP5-9	A C 4C
ZP6-1	A C 4B
ZP6-3	A C 3A
ZP7-4	A C 1B
ZP4-10	A C 3C
ZP4-11	A C 3C
ZP5-11	A C 4C
ZP5-13	A C 4C
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ZP5-17	A C 4C
ZP5-18	A C 4C
ZP6-10	A C 3B
ZP6-12	A C 3B
ZP6-14	A C 4B
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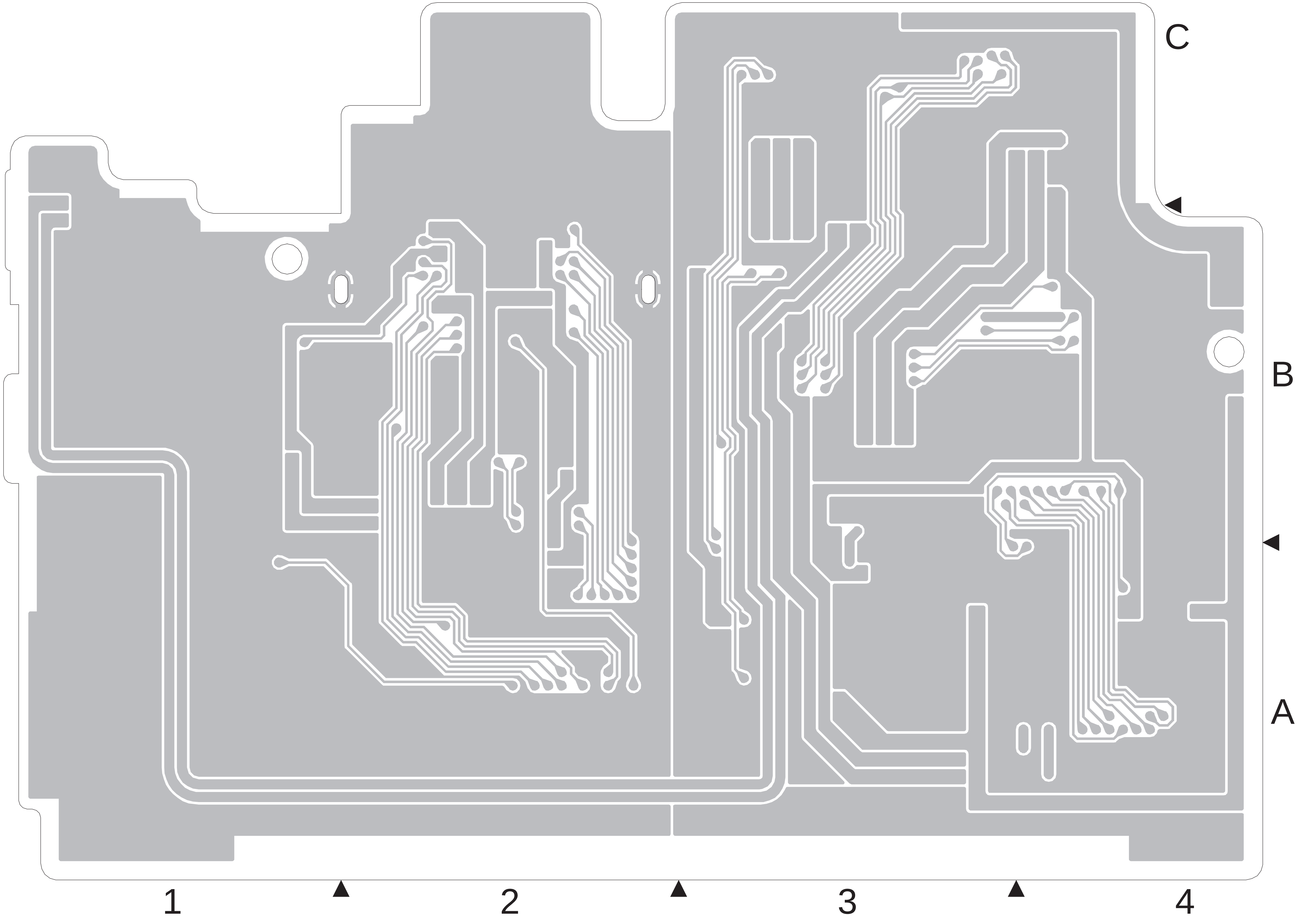
■ PREMDA CIRCUIT BOARD

<05> PREMDA
YB 10405-01-01

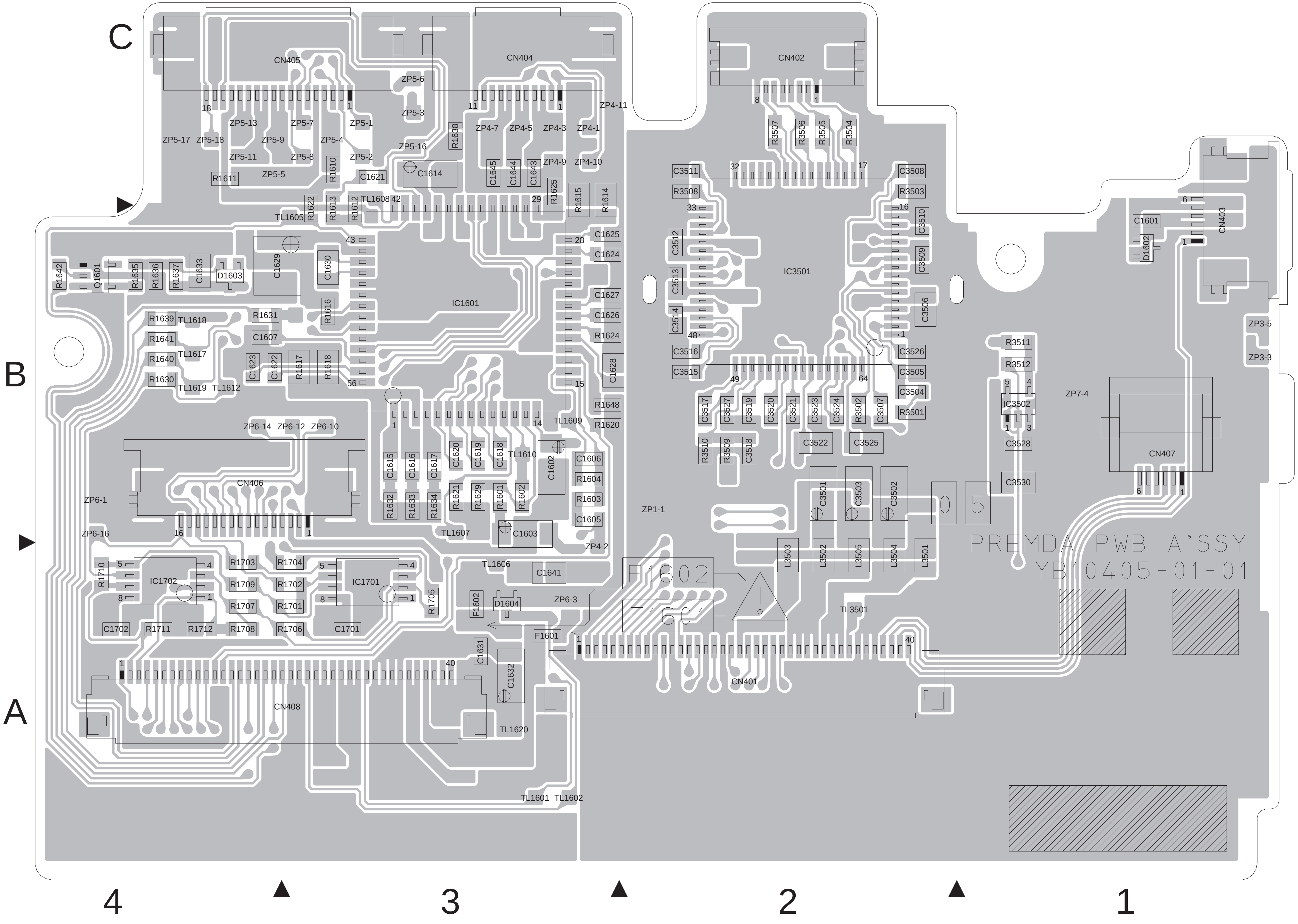
FOIL SIDE(B)



■ PREMDA CIRCUIT BOARD

<05> PREMDA
YB 10405-01-01

COMPONENT SIDE(A)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IC3502
IC1702
IC1701
ZP5-6
ZP5-3
ZP5-1
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TL1602
TL3501
Q1601
D1603
D1602
D1604
F1601
F1602
PREMDA PWB A'SSY
YB10405-01-01
05
F1602
F1601
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R1637
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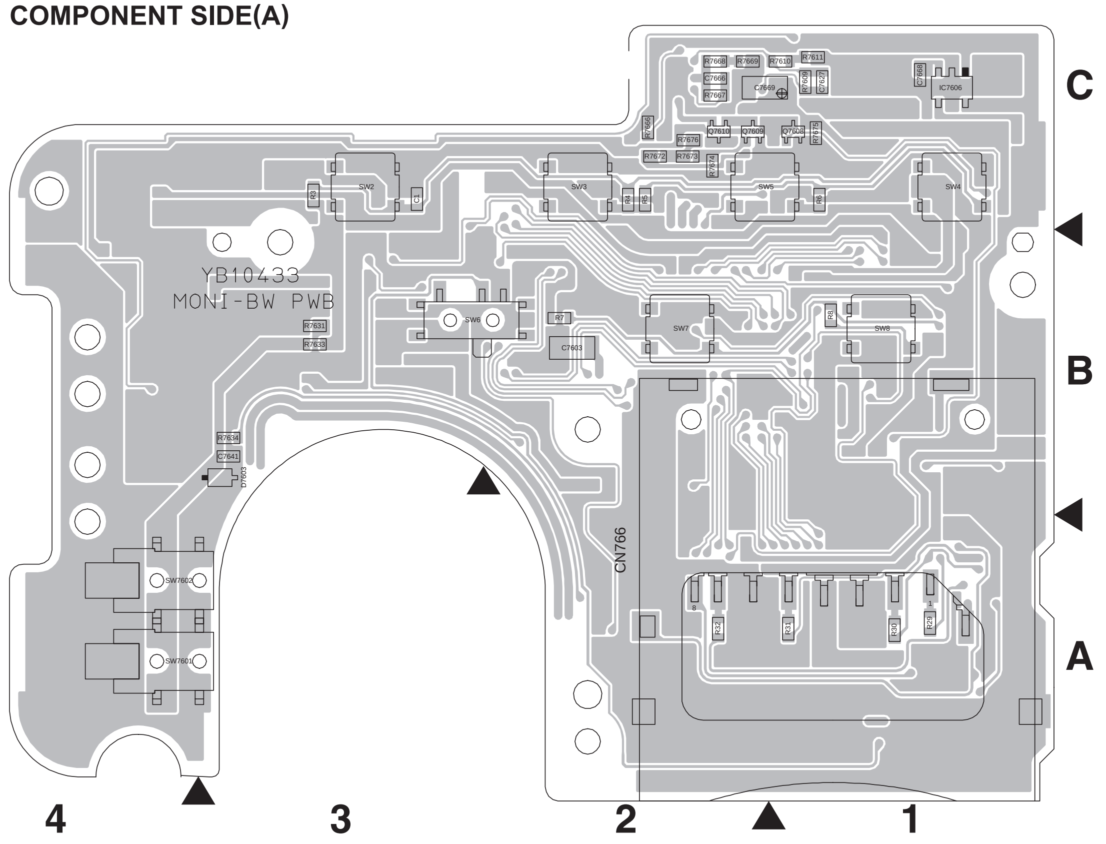
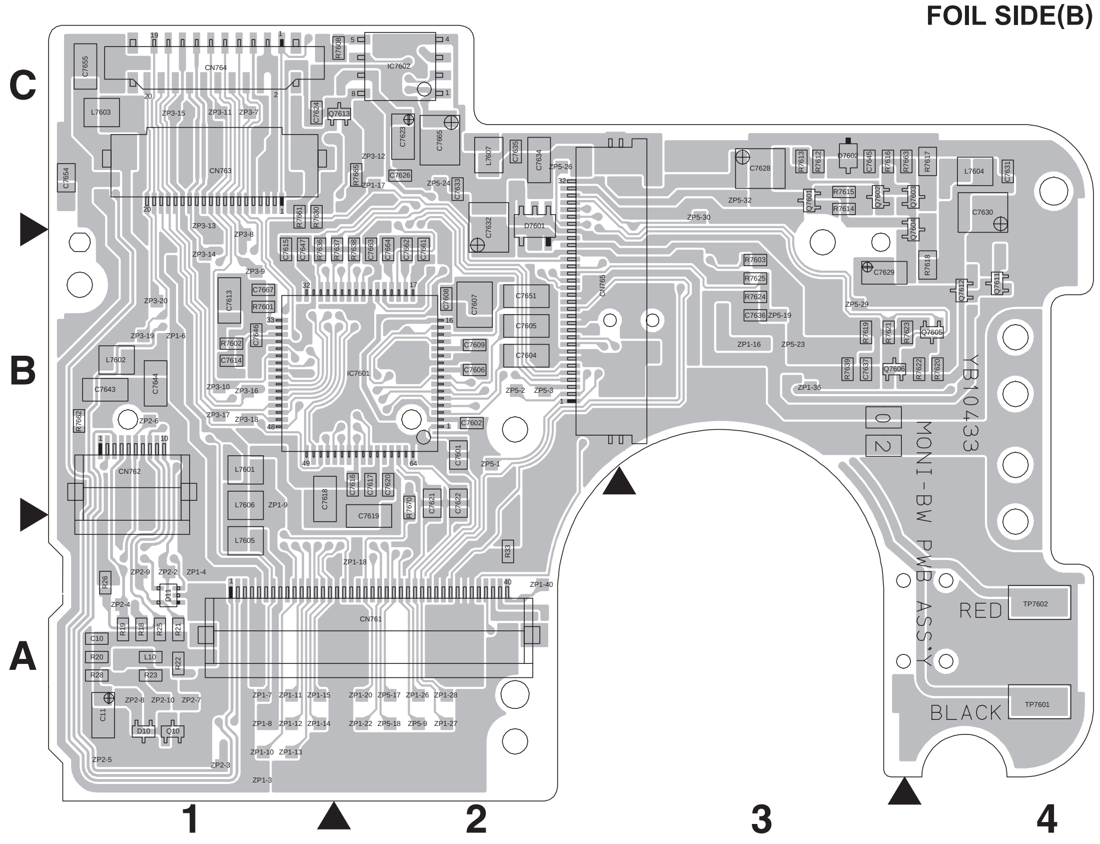
■ MONI-BW CIRCUIT BOARD

COMPONENT SIDE(A)



<02> MONI-BW
YB 10433

FOIL SIDE(B)



<02> MONI-BW
YB 10433

COMPONENT PARTS LOCATION GUIDE <MONI-BW> YB10433

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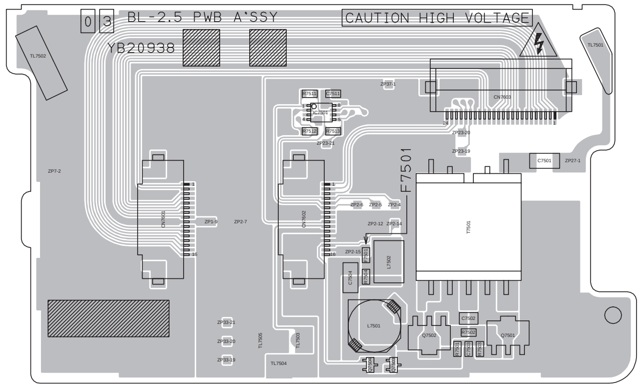
CAPACITOR		C7627	A C 1C	C7667	B C 1B	L7601	B C 1B	R5	A C 2C	R7613	B C 3C	R7667	A C 2C	ZP1-3	B C 1A	ZP1-15	B C 1A	ZP5-23	B C 3B
C1	A C 3C	C7628	B C 3C	C7668	A C 1C	L7602	B C 1B	R6	A C 1C	R7614	B C 3C	R7668	A C 2C	ZP1-4	B C 1A	ZP1-16	B C 3B	ZP5-24	B C 2C
C10	B C 1A	C7629	B C 3B	C7669	A C 2C	L7603	B C 1C	R7	A C 2B	R7615	B C 3C	R7669	A C 2C	ZP1-6	B C 1B	ZP1-17	B C 2C	ZP5-26	B C 2C
C11	B C 1A	C7630	B C 4C			L7604	B C 4C	R8	A C 1B	R7616	B C 3C	R7670	B C 2B	ZP1-7	B C 1A	ZP1-18	B C 2A	ZP5-29	B C 3B
C7601	B C 2B	C7631	B C 4C	**CONNECTOR**		L7605	B C 1A	R18	B C 1A	R7617	B C 4C	R7672	A C 2C	ZP1-8	B C 1A	ZP1-20	B C 2A	ZP5-30	B C 3C
C7602	B C 2B	C7632	B C 2C	CN761	B C 1A	L7606	B C 1B	R19	B C 1A	R7618	B C 4B	R7673	A C 2C	ZP1-9	B C 1B	ZP1-22	B C 2A	ZP5-32	B C 3C
C7603	A C 2B	C7633	B C 2C	CN762	B C 1B	L7607	B C 2C	R20	B C 1A	R7619	B C 3B	R7674	A C 2C	ZP2-2	B C 1A	ZP1-26	B C 2A		
C7604	B C 2B	C7634	B C 2C	CN763	B C 1C			R21	B C 1A	R7620	B C 4B	R7675	A C 1C	ZP2-3	B C 1A	ZP1-27	B C 2A		
C7605	B C 2B	C7635	B C 2C	CN764	B C 1C	**TRANSISTOR**		R22	B C 1A	R7621	B C 3B	R7676	A C 2C	ZP2-4	B C 1A	ZP1-28	B C 2A		
C7606	B C 2B	C7636	B C 3B	CN765	B C 2B	Q10	B C 1A	R23	B C 1A	R7622	B C 4B			ZP2-5	B C 1A	ZP1-36	B C 3B		
C7607	B C 2B	C7637	B C 3B	CN766	A C 1A	Q7601	B C 3C	R25	B C 1A	R7623	B C 4B	**OTHER**		ZP2-6	B C 1B	ZP1-40	B C 2A		
C7608	B C 2B	C7641	A C 3B			Q7602	B C 3C	R26	B C 1A	R7624	B C 3B	SW2	A C 3C	ZP2-7	B C 1A	ZP2-10	B C 1A		
C7609	B C 2B	C7643	B C 1B	**DIODE**		Q7603	B C 4C	R28	B C 1A	R7625	B C 3B	SW3	A C 2C	ZP2-8	B C 1A	ZP3-10	B C 1B		
C7613	B C 1B	C7644	B C 1B	D10	B C 1A	Q7604	B C 4C	R29	A C 1A	R7630	B C 1C	SW4	A C 1C	ZP2-9	B C 1A	ZP3-11	B C 1C		
C7614	B C 1B	C7645	B C 3C	D11	B C 1A	Q7605	B C 4B	R30	A C 1A	R7631	A C 3B	SW5	A C 2C	ZP3-7	B C 1C	ZP3-12	B C 2C		
C7615	B C 1B	C7646	B C 1B	D7601	B C 2C	Q7606	B C 4B	R31	A C 1A	R7633	A C 3B	SW6	A C 3B	ZP3-8	B C 1B	ZP3-13	B C 1C		
C7616	B C 2B	C7647	B C 1B	D7602	B C 3C	Q7608	A C 1C	R32	A C 2A	R7634	A C 3B	SW7	A C 2B	ZP3-9	B C 1B	ZP3-14	B C 1B		
C7617	B C 2B	C7651	B C 2B	D7603	A C 3B	Q7609	A C 2C	R33	B C 2A	R7636	B C 1B	SW8	A C 1B	ZP5-1	B C 2B	ZP3-15	B C 1C		
C7618	B C 1B	C7654	B C 1C			Q7610	A C 2C	R7601	B C 1B	R7637	B C 2B	SW7601	A C 4A	ZP5-2	B C 2B	ZP3-16	B C 1B		
C7619	B C 2B	C7655	B C 1C	**IC**		Q7611	B C 4B	R7602	B C 1B	R7638	B C 2B	SW7602	A C 4A	ZP5-3	B C 2B	ZP3-17	B C 1B		
C7620	B C 2B	C7661	B C 2B	IC7601	B C 2B	Q7612	B C 4B	R7603	B C 3B	R7639	B C 3B	TM1	A C 4A	ZP5-9	B C 2A	ZP3-18	B C 1B		
C7621	B C 2B	C7662	B C 2B	IC7602	B C 2C	Q7613	B C 2C	R7608	B C 2C	R7661	B C 1C	TM5	A C 4A	ZP1-10	B C 1A	ZP3-19	B C 1B		
C7622	B C 2B	C7663	B C 2B	IC7606	A C 1C			R7609	A C 1C	R7662	B C 1B	TM13	A C 4A	ZP1-11	B C 1A	ZP3-20	B C 1B		
C7623	B C 2C	C7664	B C 2B			**RESISTOR**		R7610	A C 1C	R7663	B C 4C	TM17	A C 3A	ZP1-12	B C 1A	ZP5-17	B C 2A		
C7624	B C 1C	C7665	B C 2C	**COIL**		R3	A C 3C	R7611	A C 1C	R7665	B C 2C	TP7601	B C 4A	ZP1-13	B C 1A	ZP5-18	B C 2A		
C7626	B C 2C	C7666	A C 2C	L10	B C 1A	R4	A C 2C	R7612	B C 3C	R7666	A C 2C	TP7602	B C 4A	ZP1-14	B C 1A	ZP5-19	B C 3B		

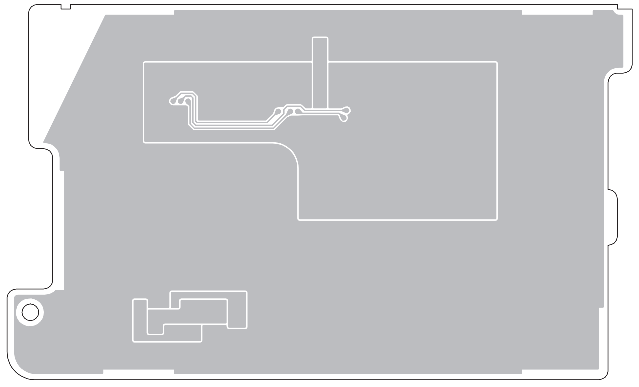
■ BL-2.5 CIRCUIT BOARD

COMPONENT SIDE(A)



<03> BL-2.5
YB 20938

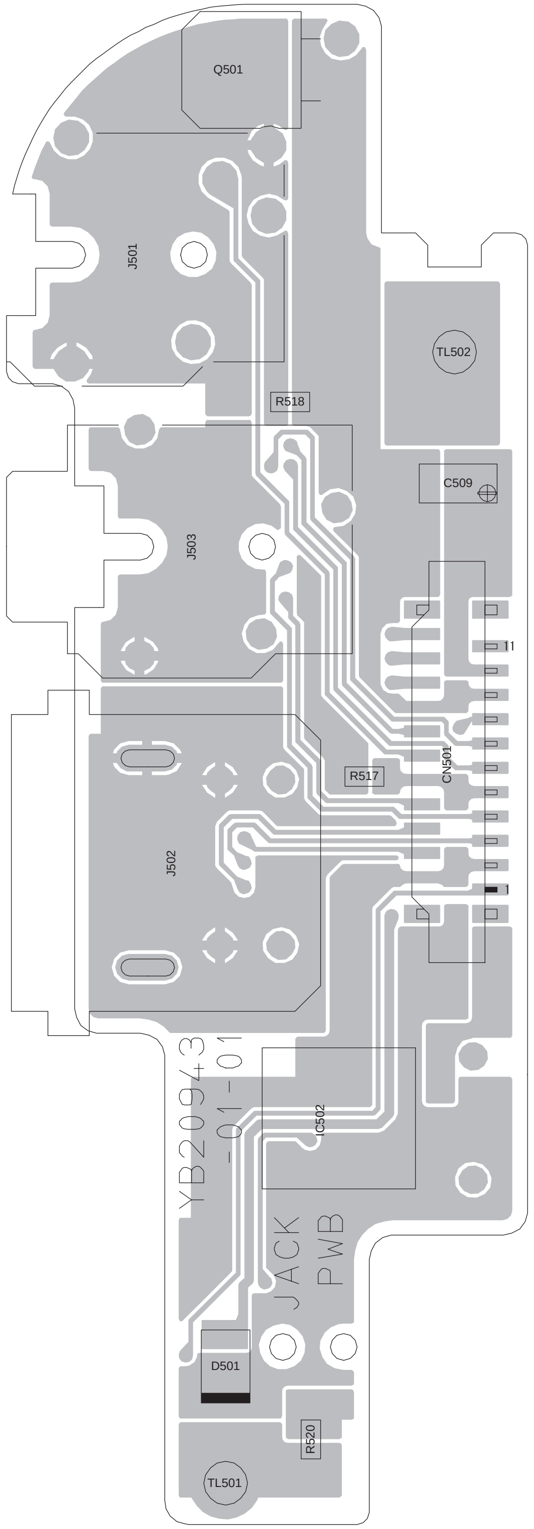
FOIL SIDE(B)



<03> BL-2.5
YB 20938

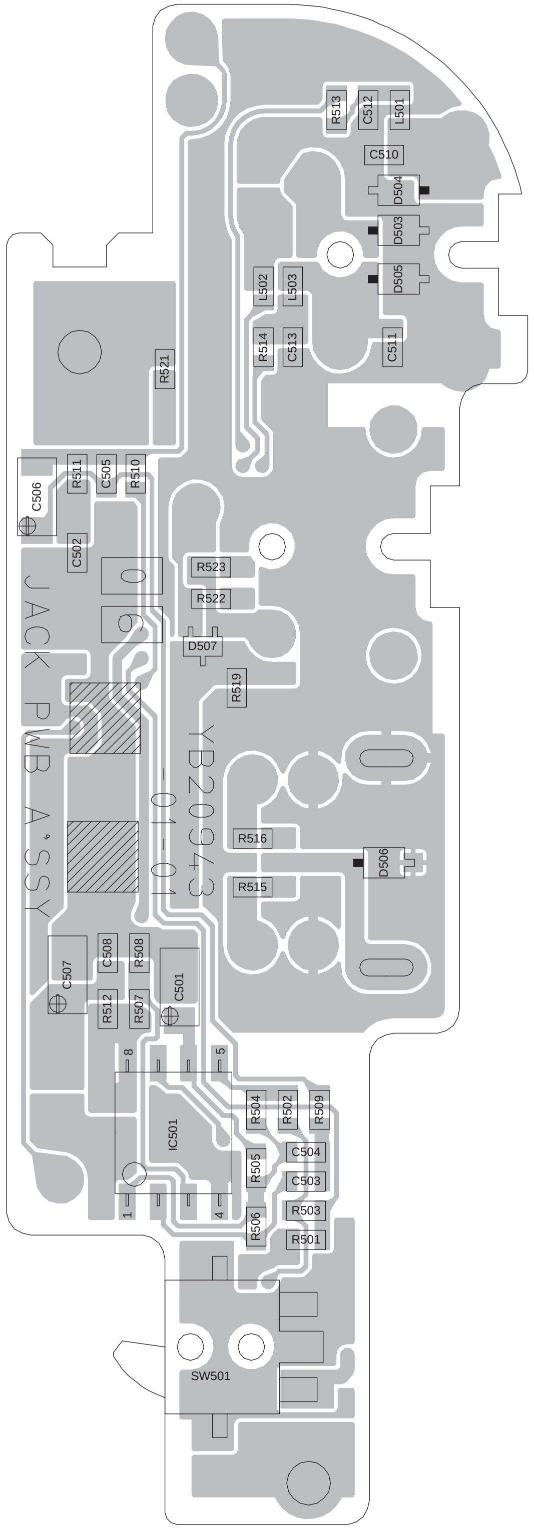
■ JACK CIRCUIT BOARD

COMPONENT SIDE(A)


Q501
J501
TL502
R518
C509
J503
11
R517
CN501
J502
1
YB20943
-01-01
C502
JACK
PWB
D501
R520
TL501

<06> JACK
YB 20943-01-01

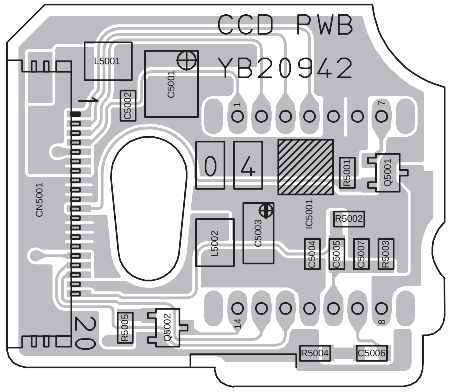
FOIL SIDE(B)


R513
C512
L501
C510
D504
D503
L502
L503
D505
R514
C513
C511
R521
C506
R511
C505
R510
C502
R523
R522
06
D507
R519
JACK PWB A'SSY
YB20943
-01-01
R516
R515
D506
C507
C508
R508
C501
R512
R507
8
5
IC501
1
4
R504
R502
R509
C504
R505
C503
R503
R506
R501
SW501

<06> JACK
YB 20943-01-01

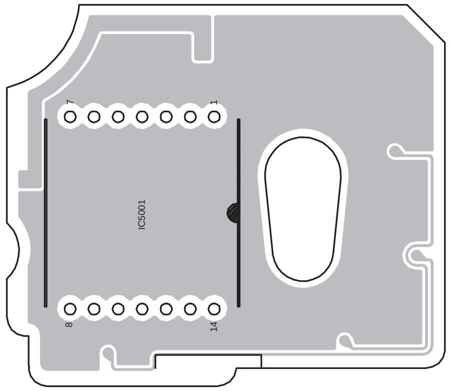
■ CCD CIRCUIT BOARD

COMPONENT SIDE(A)


CCD PWB
YB20942
L5001
C5001
C5002
CN5001
04
R5001
Q5001
IC5001
L5002
C5003
R5002
C5004
C5005
C5007
R5003
20
R5005
Q5002
R5004
C5006
1
7
14
8

<04> CCD
YB 20942

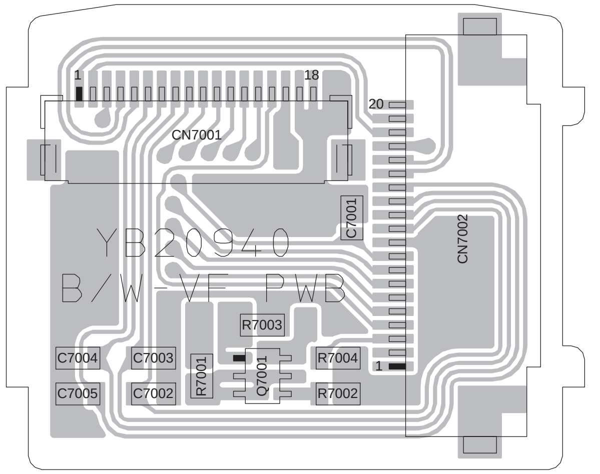
FOIL SIDE(B)


7
1
IC5001
8
14

<04> CCD
YB 20942

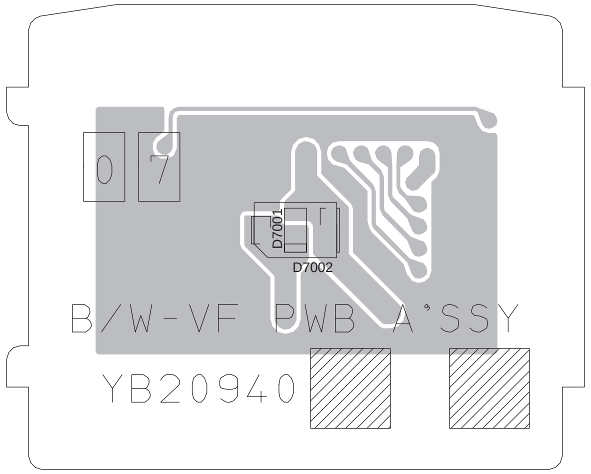
■ B/W-VF CIRCUIT BOARD

COMPONENT SIDE(A)


1
18
20
CN7001
YB20940
B/W-VF PWB
C7001
CN7002
R7003
C7004
C7003
R7001
Q7001
R7004
1
C7005
C7002
R7002

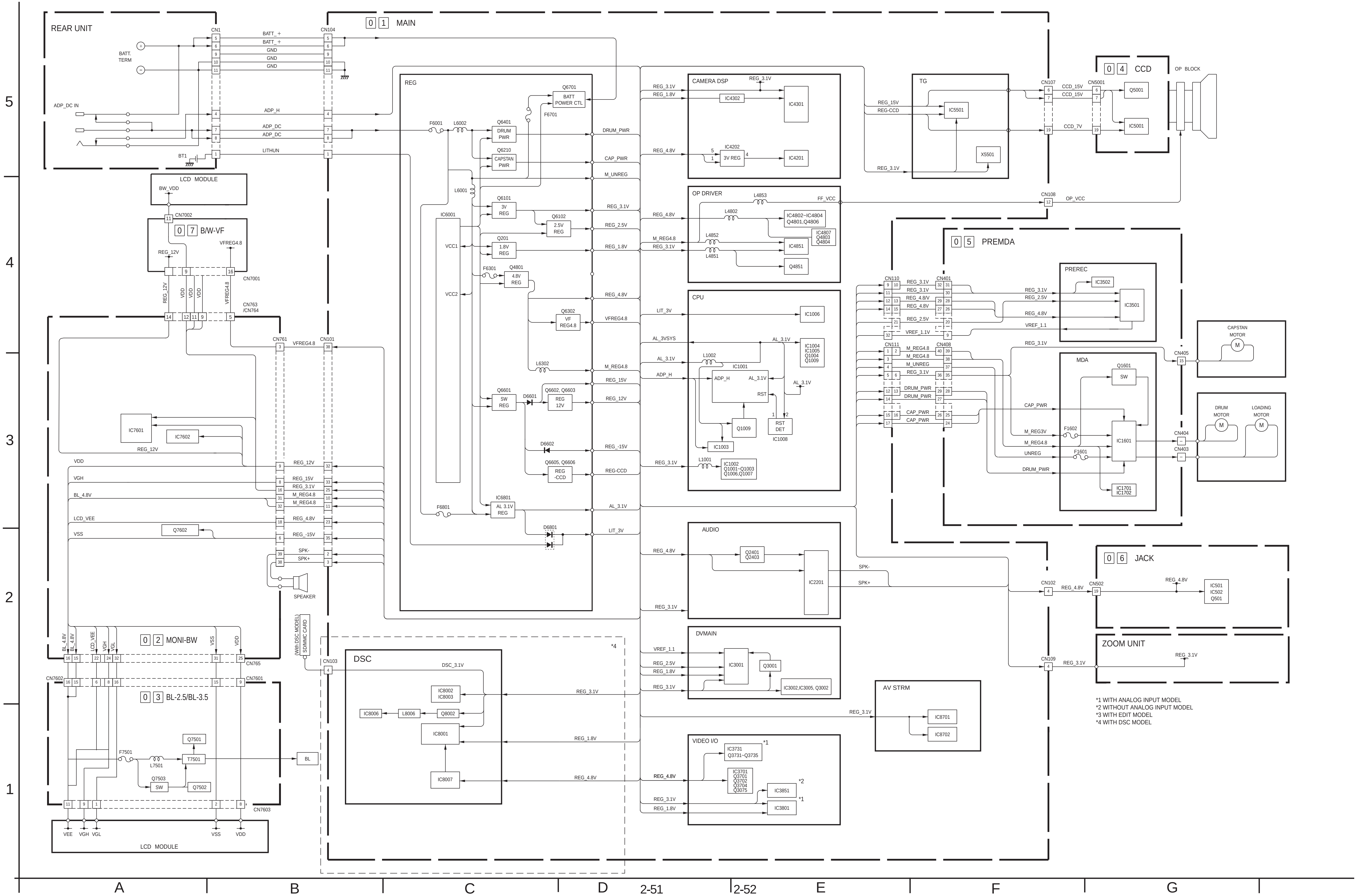
<07> B/W-VF
YB 20940

FOIL SIDE(B)


07
D7001
D7002
B/W-VF PWB A'SSY
YB20940

<07> B/W-VF
YB 20940

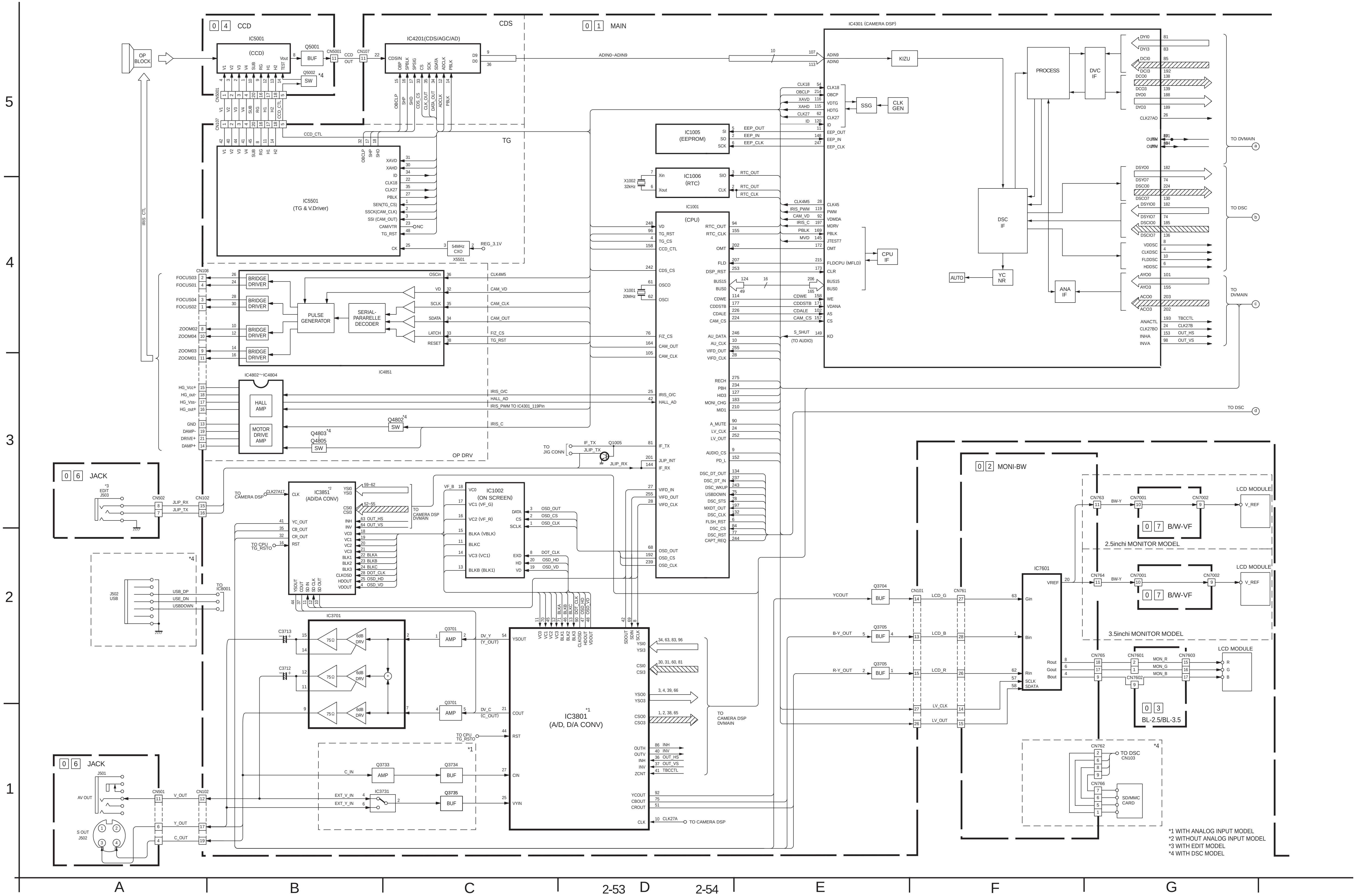
■ POWER SYSTEM BLOCK DIAGRAM



REAR UNIT
BATT. TERM
ADP_DC IN
BT1
CN1
CN104
BATT_+
GND
ADP_H
ADP_DC
LITHUN
01 MAIN
REG
F6001
L6002
Q6401 DRUM PWR
Q6210 CAPSTAN PWR
Q6701 BATT POWER CTL
F6701
L6001
IC6001
VCC1
VCC2
Q6101 3V REG
Q6102 2.5V REG
Q201 1.8V REG
F6301
Q4801 4.8V REG
Q6302 VF REG4.8
L6302
Q6601 SW REG
D6601
Q6602, Q6603 REG 12V
D6602
Q6605, Q6606 REG -CCD
IC6801 AL 3.1V REG
F6801
D6801
DRUM_PWR
CAP_PWR
M_UNREG
REG_3.1V
REG_2.5V
REG_1.8V
REG_4.8V
VFREG4.8
M_REG4.8
REG_15V
REG_12V
REG_-15V
REG-CCD
AL_3.1V
LIT_3V
CAMERA DSP
IC4302
IC4301
IC4202 3V REG
IC4201
OP DRIVER
L4853
FF_VCC
L4802
IC4802~IC4804 Q4801,Q4806
IC4807 Q4803 Q4804
L4852
L4851
IC4851
Q4851
M_REG4.8
CPU
IC1006
AL_3VSYS
AL_3.1V
IC1004 IC1005 Q1004 Q1009
L1002
IC1001
ADP_H
RST
Q1009
RST DET
IC1008
IC1003
L1001
IC1002 Q1001~Q1003 Q1006,Q1007
TG
REG_15V
REG-CCD
IC5501
X5501
CN107
CN108
OP_VCC
CCD_15V
CCD_7V
04 CCD
CN5001
Q5001
IC5001
OP BLOCK
05 PREMDA
CN110
CN401
CN111
CN408
REG_4.8V
VREF_1.1
M_REG4.8
M_UNREG
DRUM_PWR
CAP_PWR
PREREC
IC3502
IC3501
MDA
Q1601 SW
F1602
F1601
M_REG3V
UNREG
IC1601
IC1701 IC1702
CN405
CN404
CN403
CAPSTAN MOTOR
DRUM MOTOR
LOADING MOTOR
M
AUDIO
Q2401 Q2403
IC2201
SPK-
SPK+
06 JACK
CN102
CN502
IC501 IC502 Q501
ZOOM UNIT
CN109
DVMAIN
VREF_1.1
IC3001
Q3001
IC3002,IC3005, Q3002
AV STRM
IC8701
IC8702
VIDEO I/O
IC3731 Q3731~Q3735
IC3701 Q3701 Q3702 Q3704 Q3075
IC3851
IC3801
*1
*2
*4
DSC
CN103
DSC_3.1V
IC8002 IC8003
IC8006
L8006
Q8002
IC8001
IC8007
(With DSC MODEL) SD/MMC CARD
LCD MODULE
BW_VDD
CN7002
07 B/W-VF
REG_12V
VFREG4.8
CN7001
VDD
CN763 /CN764
CN761
CN101
IC7601
IC7602
Q7602
VGH
BL_4.8V
LCD_VEE
VSS
SPEAKER
02 MONI-BW
CN765
CN7602
CN7601
03 BL-2.5/BL-3.5
F7501
L7501
Q7501
T7501
Q7503 SW
Q7502
BL
CN7603
VEE
VGL
A
B
C
D
E
F
G
1
2
3
4
5

*1 WITH ANALOG INPUT MODEL
*2 WITHOUT ANALOG INPUT MODEL
*3 WITH EDIT MODEL
*4 WITH DSC MODEL

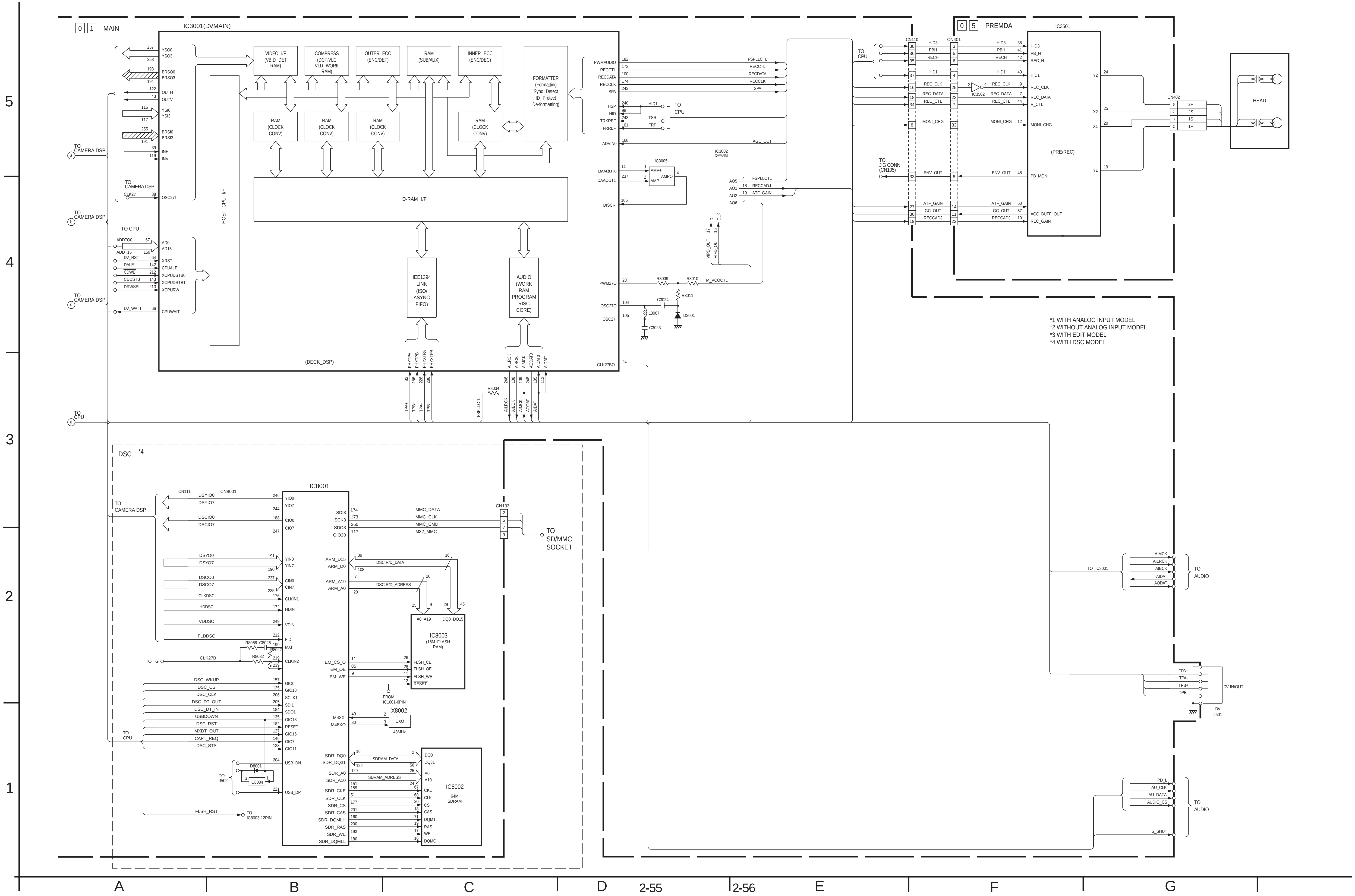
■ VIDEO BLOCK DIAGRAM (1/2)



04 CCD
IC5001 (CCD)
Q5001 BUF
Q5002 SW
OP BLOCK
IRIS_CTL
IC4201(CDS/AGC/AD)
CDS
01 MAIN
TG
IC5501 (TG & V.Driver)
X5501 54MHz CXO
REG_3.1V
ADIN0~ADIN9
IC4301 (CAMERA DSP)
KIZU
PROCESS
DVC IF
SSG
CLK GEN
DSC IF
CPU IF
YC NR
AUTO
ANA IF
TO DVMAIN a
TO DSC b
TO DVMAIN c
TO DSC d
IC1005 (EEPROM)
IC1006 (RTC)
X1002 32kHz
IC1001 (CPU)
X1001 20MHz
IC4851
BRIDGE DRIVER
PULSE GENERATOR
SERIAL-PARARELLE DECODER
FOCUS03
FOCUS01
FOCUS04
FOCUS02
ZOOM02
ZOOM04
ZOOM03
ZOOM01
IC4802~IC4804
HALL AMP
MOTOR DRIVE AMP
Q4802 SW
Q4803 Q4805 SW
OP DRV
TO JIG CONN
Q1005
06 JACK
EDIT J503
CN502
CN102
JLIP_RX
JLIP_TX
TO CAMERA DSP
IC3851 (AD/DA CONV)
TO CAMERA DSP DVMAIN
IC1002 (ON SCREEN)
J502 USB
USB_DP
USB_DN
USBDOWN
TO IC8001
IC3701
75Ω
6dB DRV
C3713
C3712
Q3701 AMP
IC3801 (A/D, D/A CONV)
TO CPU TG_RSTO
Q3733 AMP
Q3734 BUF
IC3731
Q3735 BUF
C_IN
EXT_V_IN
EXT_Y_IN
TO CAMERA DSP
06 JACK
J501 AV OUT
S OUT J502
CN501
V_OUT
Y_OUT
C_OUT
02 MONI-BW
YCOUT
B-Y_OUT
R-Y_OUT
Q3704 BUF
Q3705 BUF
CN101
CN761
LCD_G
LCD_B
LCD_R
LV_CLK
LV_OUT
IC7601
CN763
CN7001
CN7002
07 B/W-VF
LCD MODULE
V_REF
2.5inchi MONITOR MODEL
CN764
3.5inchi MONITOR MODEL
CN765
CN7601
CN7603
CN7602
MON_R
MON_G
MON_B
03 BL-2.5/BL-3.5
CN762
TO DSC CN103
CN766
SD/MMC CARD

*1 WITH ANALOG INPUT MODEL
*2 WITHOUT ANALOG INPUT MODEL
*3 WITH EDIT MODEL
*4 WITH DSC MODEL

■ VIDEO BLOCK DIAGRAM (2/2)



01 MAIN
IC3001(DVMAIN)
VIDEO I/F (VBID DET RAM)
COMPRESS (DCT.VLC VLD WORK RAM)
OUTER ECC (ENC/DET)
RAM (SUB/AUX)
INNER ECC (ENC/DEC)
FORMATTER (Formatting Sync Detect ID Protect De-formatting)
RAM (CLOCK CONV)
HOST CPU I/F
D-RAM I/F
IEE1394 LINK (ISO/ ASYNC FIFO)
AUDIO (WORK RAM PROGRAM RISC CORE)
(DECK_DSP)
TO CAMERA DSP
TO CPU
YSO0
YSO3
BRSO0
BRSO3
OUTH
OUTV
YSI0
YSI3
BRSI0
BRSI3
INH
INV
OSC27I
AD0
AD15
XRST
CPUALE
XCPUDSTB0
XCPUDSTB1
XCPURW
CPUWAIT
PWMAUDIO
RECCTL
RECDATA
RECCLK
SPA
HSP
HID
TRKREF
FRREF
ADVIN0
DAAOUT0
DAAOUT1
DISCRI
PWM27O
OSC27O
OSC27I
CLK27BO
IC3005
AMPO
IC3002 (DVMAIN)
FSPLLCTL
RECCADJ
ATF_GAIN
AGC_OUT
M_VCOCTL
R3009
R3010
R3011
C3024
L3007
D3001
C3023
R3034
VIPD_OUT
VIFD_OUT
05 PREMDA
IC3501
(PRE/REC)
CN110
CN401
HID3
PBH
RECH
HID1
REC_CLK
REC_DATA
REC_CTL
MONI_CHG
ENV_OUT
ATF_GAIN
GC_OUT
RECCADJ
IC3502
PB_MONI
AGC_BUFF_OUT
REC_GAIN
Y2
X2
X1
Y1
CN402
2F
2S
1S
1F
HEAD
TO JIG CONN (CN105)
*1 WITH ANALOG INPUT MODEL
*2 WITHOUT ANALOG INPUT MODEL
*3 WITH EDIT MODEL
*4 WITH DSC MODEL
DSC *4
IC8001
CN111
CN8001
DSYIO0
DSYIO7
DSCIO0
DSCIO7
DSYO0
DSYO7
DSCO0
DSCO7
CLKDSC
HDDSC
VDDSC
FLDDSC
CLK27B
TO TG
R8068
C8026
R8032
DSC_WKUP
DSC_CS
DSC_CLK
DSC_DT_OUT
DSC_DT_IN
USBDOWN
DSC_RST
MXDT_OUT
CAPT_REQ
DSC_STS
D8001
IC8004
TO J502
FLSH_RST
TO IC8003-12PIN
MMC_DATA
MMC_CLK
MMC_CMD
M32_MMC
CN103
TO SD/MMC SOCKET
DSC R/D_DATA
DSC R/D_ADRESS
IC8003 (16M_FLASH RAM)
FLSH_CE
FLSH_OE
FLSH_WE
RESET
FROM IC1001-6PIN
X8002
CXO
48MHz
SDRAM_DATA
SDRAM_ADRESS
IC8002 64M SDRAM
TO IC3001
AIMCK
AILRCK
AIBCK
AIDAT
AODAT
TO AUDIO
TPA+
TPA-
TPB+
TPB-
DV IN/OUT
DV J501
PD_L
AU_CLK
AU_DATA
AUDIO_CS
S_SHUT
A
B
C
D
E
F
G
1
2
3
4
5

VOLTAGE CHARTS

<MAIN IF>

MODE PIN NO.	REC	PLAY
Q2001		
1	0	0
2	0.5	0.5
3	3.0	3.0
4	0	0
5	0	0
6	0	0
Q2002		
1	0	0
2	0	0
3	0	2.9
4	0	0
5	0.5	0
6	0.5	0
Q2003		
1	0	0
2	0.5	0.5
3	3.0	2.3
4	0	0
5	0	0
6	0	0
Q2004		
1	0	0
2	0.5	0
3	2.9	0
4	0	0
5	0	0.5
6	0	0.5
Q2005		
1	0	0
2	0.5	0.5
3	2.9	2.9
4	0	0
5	0	0
6	0	0
Q2006		
1	0	0
2	0.4	0.4
3	2.9	2.9
4	0	0
5	0	0
6	0	0

<CPU>

MODE PIN NO.	REC	PLAY
IC1001	-	-
IC1002		
1	2.8	2.8
2	2.5	2.5
3	2.7	2.7
4	3	3
5	3.1	3.1
6	3.1	3.1
7	1.4	1.4
8	1.5	1.5
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	3	3
20	2.8	2.8
IC1003		
1	0	0
2	3	3
3	0	0
4	3	3
5	3	3
IC1004		
1	1.2	1.2
2	0	0
3	1.4	1.4
4	0	0
5	3	3
IC1005		
1	3	3
2	0	0
3	3	3
4	0	0
5	3	3
6	3	3
7	3	3
8	3	3
IC1006		
1	0	0
2	3	3
3	3	3
4	0	0
5	3	-
6	0.5	0.5
7	0.4	0.8
8	3	3.2
IC1007		
1	3	3
2	3	3
3	0	0
4	0	0
Q1001		
E	3.1	3.1
C	3.1	3.1
B	3	3
Q1002		
1	0	0
2	3	3
3	0	3.1
4	0	2.9
5	0	0
Q1003		
1	0	0
2	3	0
3	3.1	3.1
4	-0.8	-0.4
5	3.1	3.1
Q1004		
1	0	0
2	3	3
3	3	3
4	3	3
5	0	0
Q1005		
E	0	0
C	1	0.4
B	0	0
Q1006		
1	0	0
2	3	0
3	3.1	3.1
4	3	-0.2
5	0	3.1
Q1007		
E	0	0
C	3.1	3.1
B	0.5	0.5
Q1008		
E	0	0
C	0	0
B	3	0

MODE PIN NO.	REC	PLAY
Q1009		
D	3	3
S	0	0
G	3	3

<AUDIO>

MODE PIN NO.	REC	PLAY
IC2201		
1	0	0
2	0	0
3	0	0
4	3	3
5	3.1	3.1
6	0	0
7	1.5	1.5
8	1.4	1.4
9	1.5	1.5
10	2.9	2.9
11	2.9	2.9
12	3	3
13	1.5	1.5
14	1.5	1.5
15	3	3
16	0	0
17	1.5	1.5
18	2.4	2.4
19	1.5	1.5
20	2.4	2.4
21	1.5	1.5
22	0.2	2.4
23	1.5	1.5
24	0.2	2.4
25	0.9	0.9
26	0	0
27	0	0
28	4.8	4.8
29	0	0
30	2.4	2.4
31	0	0
32	3	3
33	1.5	1.5
34	0.8	1.1
35	0.8	1.1
36	1.5	1.5
37	1.5	1.5
38	1.5	1.5
39	1.5	0.2
40	1.5	0
41	0	0
42	4	4.7
43	2.6	0
44	4	4.4
45	1.5	0.2
46	1.5	0.2
47	1.5	1.5
48	1.5	1.5
Q2202		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
Q2401		
E	4	4.7
C	4.8	4.8
B	4.8	4.8
Q2403		
E	3	3
C	4.8	4.8
B	3.7	3.7

<DV MAIN>

MODE PIN NO.	REC	PLAY
IC3001	-	-
IC3002		
1	0	0
2	0.5	0.5
3	0.4	0.4
4	1.7	1.7
5	0.7	0.7
6	2.4	2.4
7	1.2	1.2
8	3.1	3.1
9	3.1	3.1
10	3.1	3.1
11	3.1	3.1
12	2.1	2.1
13	1.1	1.1
14	0	0
15	0	0
16	3	3
17	3	3
18	1.4	1.4
19	1.3	1.3
20	0	0
IC3005		
1	0	0.4
2	0	0.4
3	0	0
4	0.8	1.7
5	0	0
6	0	0
7	0	0
8	0	3.1
Q3001		
E	1.8	1.8
C	2.9	2.9
B	2.4	2.4
Q3002		
E	0.3	1.2
C	3.1	3.1
B	0.8	1.7

<VIDEO I/O>

MODE PIN NO.	REC	PLAY
IC3701		
1	0	0
2	2.3	2.3
3	0	0
4	0	0
5	0	0
6	0	0
7	1.9	1.9
8	0	0
9	2.3	2.3
10	0	0
11	2.1	2.1
12	2.1	2.1
13	4.8	4.8
14	1.9	1.9
15	1.9	1.9
16	4.8	4.8
IC3731		
1	3	3
2	2	2
3	4.8	4.8
4	1.7	1.7
5	0	0
6	2.3	2.3
IC3801	-	-
IC3851	-	-
Q3701		
1	1.2	1.2
2	0.6	0.6
3	0	0
4	1.4	1.4
5	0.8	0.8
6	0	0
Q3702		
1	0.2	0
2	0	0
3	0	0
4	4.8	4.8
5	4.9	4.7
6	4.9	4.7
Q3704		
E	0.9	0.9
C	0	0
B	0.3	0.3
Q3705		
1	0.9	0.9
2	0.3	0.3
3	0	0
4	0.9	0.9
5	0.3	0.3
6	0	0
Q3731		
E	0	0
C	4.8	4.8
B	0	0
Q3732		
E	0	0
C	0	0
B	3	3
Q3733		
1	0	0
2	0.4	0.4
3	0	0
4	4.8	4.8
5	4.8	4.8
6	4.8	4.8
Q3734		
E	0	0
C	4.8	4.8
B	0	0
Q3735		
1	0.1	0.1
2	0.4	0.4
3	0	0
4	2.1	2.1
5	1.5	1.5
6	4.8	4.8

<CDS/DSP>

MODE PIN NO.	REC	PLAY
IC4201		
1	1.2	0
2	1.2	0
3	0.5	0
4	0.2	0
5	0	3
6	0	0
7	0	0
8	0	0
9	1.2	0
10	3	3
11	0	0
12	1.5	1.5
13	3	3
14	2.5	0
15	3	0
16	2.4	0
17	2.5	0
18	0	0
19	3	3
20	1.9	0
21	1.9	0
22	2	0
23	1.9	0
24	1.2	0
25	3	3
26	0	0
27	0	0
28	1.4	0
29	2	0
30	0.9	0
31	3	3
32	0	0
33	3	3
34	3	3
35	3	3
36	1.2	0
IC4202		
1	4.8	4.8
2	0	0
3	1.2	1.2
4	3	3
5	4.8	4.8
IC4301	-	-
IC4302		
1	1.6	1.8
2	0	0
3	1.8	1.8
4	1.8	1.8
5	1.4	1.4

<OP DRIVE>

MODE PIN NO.	REC	PLAY
IC4802		
1	3.1	3.1
2	2.6	2.6
3	2.6	2.6
4	0	0
5	2.6	2.6
6	2.6	2.6
7	2.6	2.6
8	4.8	4.8
IC4803		
1	1.3	1.3
2	0.6	0.6
3	0.6	0.6
4	0	0
5	2.6	2.6
6	2.6	2.6
7	1.6	2.8
8	4.8	4.8
IC4804		
1	1.3	0.3
2	1.6	2.6
3	1.6	0
4	0	0
5	1.5	3
6	1.5	3
7	2	0
8	4.8	4.8
IC4807		
1	1.5	3
2	1.5	3
3	4.8	4.8
4	0	0
5	1.5	3
6	1.5	3
7	4.8	4.8
8	4.8	4.8
IC4851		
1	0	0
2	0.6	0.6
3	0.3	0.3
4	0	0
5	0	0.3
6	0.3	0
7	0	0
8	3.1	3.1
9	4.6	4.6
10	0.6	0.6
11	0	0
12	0.7	0.5
13	4.6	4.6
14	0.7	0.7
15	0	0
16	0.7	0.7
17	0	0
18	0	0
19	0	0
20	0	0
21	0	0
22	0	0
23	4.6	4.6
24	0.8	1.5
25	0	0
26	0.8	1.5
27	4.8	4.6
28	0.8	1.5
29	0	0
30	0.8	1.5
31	3.1	3.1
32	0	0
33	0	0
34	3	3
35	3	3
36	1.5	1.5
37	1.5	1.5
38	3	3
Q4801		
E	0.6	0.6
C	2.1	2.1
B	1.3	1.3
Q4802		
E	0	0
C	1.5	3
B	0	0
Q4803		
E	0	0
C	4.8	4.8
B	0	0
Q4804		
E	4.8	4.8
C	1.5	3
B	4.8	4.8
Q4805		
E	4.8	4.8
C	1.5	3
B	4.8	4.8

MODE PIN NO.	REC	PLAY
Q4806		
E	1.2	0
C	4.8	4.8
B	2	0
Q4851		
E	0	0
C	3.5	3.7
B	0	0

<TG>

MODE PIN NO.	REC	PLAY
IC5501		
1	0	0
2	3	3
3	3	3
4	3	3.1
5	0	0
6	3	3.1
7	0.3	0
8	0.3	0
9	0	0
10	3	3.1
11	1.6	0
12	3	3.1
13	0	0
14	1.3	0
15	0	0
16	3.1	3.1
17	2.3	0
18	2.3	0
19	2.4	0
20	0	0
21	0	0
22	1.2	1.4
23	0	0
24	3	3.1
25	0	0.6
26	3.1	0
27	2.5	0
28	0	0
29	0	0
30	0.3	0
31	0	3
32	3	0
33	3	3.1
34	1.5	0
35	1.3	1.4
36	3	3.1
37	0	0
38	0	0
39	0	0
40	-0.3	0
41	-7.1	0
42	-0.3	15.1
43	15.1	15.1
44	-7.1	15.1
45	-7.1	15.1
46	-7.6	-7.6
47	0	0
48	3	3

<REG>

MODE PIN NO.	REC	PLAY
IC6001		
1	3.1	3.1
2	3	3
3	3	3
4	3	3
5	3	3
6	0	0
7	1.2	1.2
8	11.1	11.1
9	1	1
10	1.2	1.2
11	2.2	2.2
12	0	0
13	0	0
14	0	0
15	0	0
16	0	0
17	0.1	0.1
18	0	0
19	2.2	2.2
20	1	1
21	0	0
22	2.2	2.2
23	1	1
24	0.6	0.6
25	1	1
26	0.6	0.6
27	1	1
28	0.8	0.8
29	1	1
30	0.6	0.6
31	0.3	0.3
32	0.3	0.3
33	0.6	0.6
34	0	0
35	0	0
36	0.5	0.5
37	0.8	0.8
38	0	0
39	1	1
40	0	0
41	2.5	2.5
42	1.1	1.1
43	0	0
44	2.2	2.2
45	2.2	0
46	2.2	2.2
47	6.5	6.5
48	1	1
49	1	1
50	2.6	2.1
51	11.1	11.1
52	0	0
53	9.7	9.7
54	8.8	8.8
55	8	8
56	6	6
57	9.1	9.1
58	7.8	7.8
59	0	0
60	11.1	11.1
61	0	0
62	0	0
63	0.2	0.2
64	2	2
IC6801		
1	11.1	11.1
2	0	0
3	1.2	1.2
4	10.4	10.4
5	11.1	11.1
Q6101		
1	7.8	7.8
2	11.1	11.1
3	0	0
4	3.1	3.1
5	3.1	3.1
Q6102		
E	3.1	3.1
C	2.5	2.5
B	2.6	2.4
Q6201		
1	9	8.6
2	11.1	11.1
3	0	0
4	1.8	2.6
5	1.8	2.6
Q6301		
1	6	6
2	11.1	11.1
3	0	0
4	4.8	4.8
5	4.8	4.8
Q6302		
E	4.8	4.8
C	-0.6	-0.6
B	4.8	4.8

MODE PIN NO.	REC	PLAY
Q6303		
E	0	0
C	4.8	4.8
B	0	0
Q6401		
1	8.5	8.5
2	11.1	11.1
3	0	0
4	2.6	2.6
5	2.6	2.6
Q6501		
1	9.7	9.7
2	11.1	11.1
3	0	0
4	1.2	1.2
5	1.2	1.2
Q6601		
D	11.1	11.1
S	8	8
G	0	0
Q6602		
1	4.3	4.3
2	5.1	5.1
3	14.5	14.5
4	4.3	4.3
5	4.8	4.8
6	15.1	15.1
Q6603		
E	15.1	15.1
C	12	12
B	14.5	14.5
Q6604		
E	0	0
C	15.1	15.1
B	-1	-1
Q6605		
1	0	0
2	-7.6	-7.6
3	-14.5	-14.5
4	-7	-
5	-7.5	-7.5
6	-15	-15
Q6606		
E	-15	-15
C	-7.6	-7.6
B	-14.5	-15
Q6701		
D	11.1	11.1
S	11.1	11.1
G	0	0
Q6801		
1	3.2	3.2
2	3.2	3.2
3	0	0
4	10.9	10.9
5	11.1	11.1

<MDA>

MODE PIN NO.	REC	PLAY
IC1601		
1	0.4	0.4
2	0.5	0.5
3	0	0
4	0.5	0.5
5	1.5	1.5
6	1.5	1.5
7	1.5	1.5
8	1.5	1.5
9	1.6	1.6
10	1.5	1.5
11	2.8	2.8
12	1.2	1.2
13	1.6	1.6
14	1.5	1.5
15	1.5	1.5
16	1.5	1.5
17	1.6	1.6
18	3.1	3.1
19	0.7	0.7
20	0.4	0.4
21	1.3	1.3
22	1.3	1.3
23	11.1	11.1
24	2.6	2.6
25	0.7	0.7
26	1.3	1.3
27	0.7	0.7
28	1	1
29	1.2	1.2
30	1.2	1.2
31	1.2	1.2
32	0	0
33	1.2	1.2
34	1.5	1.5
35	0	0
36	0	0
37	0	0
38	0	0
39	4.6	4.6
40	-	-
41	-	-
42	1.5	1.5
43	1.5	1.5
44	14	14
45	2.3	2.3
46	12.5	12.5
47	0	0
48	0	0
49	3	3
50	3	3
51	0	0
52	1.2	1.2
53	0.2	0.2
54	1.5	1.5
55	0.7	0.7
56	0.9	0.9
IC1701		
1	-	-
2	1.5	1.5
3	1.5	1.5
4	0	0
5	1.4	1.4
6	1.5	1.5
7	-	-
8	4.6	4.6
IC1702		
1	-	-
2	1.5	1.5
3	-	-
4	0	0
5	-	-
6	1.5	1.5
7	-	-
8	4.6	4.6
Q1601		
1	0	0
2	0	0
3	4.6	4.6
4	0	0
5	4.6	4.6

<PRE/REC>

MODE PIN NO.	REC	PLAY
IC3501		
1	0	0
2	0.5	0.5
3	0	0
4	0	1.5
5	2.5	2.5
6	2.4	1.6
7	1.4	0
8	0	0
9	1.3	3.1
10	1.3	1.5
11	3.1	3.1
12	0	0
13	4.8	4.8
14	0	0
15	0	0
16	0	0
17	0	0
18	3.8	1.7
19	3.6	1.7
20	3.6	1.7
21	3.8	1.7
22	0	0
23	3.8	1.6
24	3.6	1.7
25	3.6	1.6
26	3.8	1.6
27	0	0
28	2.3	2.3
29	3.6	1.7
30	3.6	1.7
31	2.2	2.2
32	0	0
33	0	0
34	0	0
35	1.8	1.8
36	0.4	0.4
37	3.1	3.1
38	0	3
39	3.1	3.1
40	1.5	1.5
41	0	3
42	3	3
43	4.8	4.8
44	3.1	0
45	0	0
46	0	2
47	0	2
48	4.7	3.1
49	4.4	2.9
50	0.5	1.6
51	1.2	1.3
52	0.9	1.6
53	0	0
54	3.1	2.6
55	2.5	1.9
56	1.1	1.1
57	2.5	1.9
58	2.5	1.3
59	0	0
60	1.3	1.3
61	3.3	1.9
62	2.6	1.9
63	2.5	1.4
64	2.5	1.9
IC3502		
1	1.4	0
2	1.4	0
3	0	0
4	0.7	3.1
5	3.1	3.1

<JACK>

MODE PIN NO.	REC	PLAY
IC501		
1	2	2
2	2	2
3	2	2
4	0	0
5	2	2
6	2	2
7	1.5	1.5
8	4.8	4.8
IC502		
1	4.5	4.5
2	0	0
3	4.7	4.7
Q501		
E	0	0
C	4.3	4.3
B	-	-

<MONI BW>

MODE PIN NO.	EE
IC7601	
1	2.7
2	7.2
3	2.4
4	2.5
5	2.4
6	2.5
7	2.4
8	2.5
9	2.4
10	0
11	0
12	5.4
13	0.2
14	0.2
15	0.2
16	12
17	0
18	0
19	2.5
20	0.1
21	6.1
22	1.7
23	0
24	0
25	0
26	1.5
27	0
28	1.5
29	0
30	1.4
31	3.1
32	3.1
33	0.9
34	0
35	1.5
36	3.1
37	0
38	0
39	2.7
40	0
41	0
42	0
43	0
44	0.4
45	0
46	1.3
47	0
48	1.5
49	3.1
50	0
51	0
52	1.5
53	3.1
54	2.9
55	0
56	0
57	3
58	3
59	3.1
60	0
61	3.1
62	2.7
63	2.7
64	0
IC7602	
1	9
2	4.8
3	4.8
4	0
5	4.8
6	4.8
7	7.2
8	12
Q7601	
E	-10.4
C	0
B	-10
Q7602	
E	-9.4
C	-15
B	-10
Q7603	
E	-9.8
C	-0.2
B	-9.4
Q7604	
E	-9.8
C	-14.1
B	-10.5
Q7608	-
Q7609	-
Q7610	-
Q7611	
E	0
C	4.8
B	0

MODE PIN NO.	EE
Q7612	
E	4.8
C	1.1
B	4.8

<BL 2.5>

MODE PIN NO.	EE
Q7501	
E	0
C	4.3
B	0.4
Q7502	
E	0
C	4.3
B	0.4
Q7503	
E	4.4
C	4.3
B	0
Q7504	
E	0
C	0
B	3.0

<CCD>

MODE PIN NO.	EE
IC5001	
1	-7.2
2	-7.2
3	-0.3
4	-0.3
5	0
6	0
7	12
8	15.1
9	13.9
10	8
11	-7.6
12	1.6
13	1.3
14	8
Q5001	
E	11.2
C	15.1
B	12
Q5002	
E	0
C	8
B	0

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